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TECHNICAL ART SERIES

ILLUSTRATIONS OF INDIAN ARCHITECTURAL DECORATIVE WORK.

PLATES I to XIX.

37168

THE accompanying plates, selected from the drawings of the Archaeological Surveys, have been issued at intervals in small numbers at a time, as illustrations of Native art for the use of Technical Art Schools, Drawing Classes, practical workmen, and others. They are, consequently, not arranged in any sequence based on age, character, locality, or other link of connexion, but in the order of publication. In the following descriptive notes by Dr. James Burgess, C.I.E., however, the relations among them in age and character are occasionally alluded to, and some information given respecting each plate.

The object of the series and the necessity for limiting the size of the drawings and reproductions are fully set forth in the following extract from a Resolution of the Government of India in the Revenue and Agricultural Department, No. $\frac{1}{m}$, Arch., dated 5th May 1890:—

"2. The main object of the series is not to provide craftsmen with working drawings, but to give them ideas which they can work up for themselves in their own way. The series consists of selections from the drawings prepared for the illustration of the Reports of the Archaeological Survey of India, and by the use of the same plate for both purposes a great saving is effected in expense, time and labour. But the size of the Survey Reports being only $13 \times 9\frac{1}{2}$ ", the designs are in some cases on too small a scale to serve the purpose of the Technical Series without enlargement. For the Technical Series the size of plate adopted is the same as that of the Indian Art Journal. Besides being a convenient size in itself, it admits of any drawings suitable for that purpose being utilised in the illustration of the Journal. It is also sufficient to allow of enlargement of the original drawings where enlargement is necessary to shew details of designs clearly. Plates of a larger size would be inconvenient and expensive to print. The Government of India have therefore resolved that the size 15×11 " should be adhered to as far as possible for the Technical Art Series.

"3. The variety of objects to be dealt with renders it impossible to lay down any uniform scale for either reproductions or drawings. The point to be borne in mind is that the scale employed should be sufficiently large to render the details of each drawing with clearness and definition sufficient to enable workmen to apprehend and utilise them, either in larger or smaller size as they may require for their own purposes."

A new series is now under issue, in which the drawings are of a simpler character and more suitable for working purposes, in accordance with the system originated by Colonel Jacob in his admirable "Jaipur Portfolio of Architectural Details."



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PLATE I.

CARVED STONE CEILING FROM GANJIGATTI IN DHÂRWÂR DISTRICT.

THE Kanarese country in the south of the Bombay Presidency, with the northern parts of Maisur, the north-western districts of Madras, and the south-east parts of the Haidarâbâd territory, formed the old Châlukyan kingdom which, from the fifth century, continued to flourish till the twelfth,—interrupted however for a time in the eighth and ninth centuries by the Râshtrakûta dynasty from the north of the Dekhan. The kings of this country were great temple builders, and the style of their architecture, which has a strongly-marked individuality of its own, is usually called the Châlukyan style. It is distinctly an offshoot of the early Dravidian style of Southern India, so modified in its aftergrowth as to attain a distinct and well-defined character of its own.

Some of its details, especially the doorways and ceilings, are often of great beauty, and on them the builders generally lavished their utmost skill.

This Plate represents what was once the central slab of one of these roofs. It is drawn to a scale of 1:12th of the original, or one inch to a foot. It is divided by three crossing beams which, with the border, form nine square panels or cassettes. The intersections of the dividing bars are ornamented with neatly-carved knobs representing the nail-heads in a wooden frame-work, and the faces and bevelled edges of these bars are enriched by appropriate carving, while the surrounding frame has a border of foliated creeper, the leaves in each scroll varying in detail. The panels in such a frame might be filled up in an endless variety of ways according to the use to which it was to be put. In this case they are occupied by Śiva, as lord of the ascendent or zenith, in the centre, and the regents or *ashtadikpâlas* of the eight points of the compass,—the protectors of the earth,—symmetrically arranged, the first two on each side having to be looked at from that side. These regents are,—beginning at the central panel on the left side of the plate, and passing continuously to the right,—(1) Kubera or Vaisravana, regent of the North, god of wealth, and chief of the Kinnaras or musicians, and the special friend of Śiva, whence he is called also *Īśasakhi*. He is usually represented as deformed in body, with three legs and only eight teeth, wearing a crown and carrying a club. His wife Yakshi, Chârvī, or Kauberī, is here represented seated behind him on a horse,—though his peculiar vehicle is usually described as a self-moving car. His daughter is Minākshi “the fish-eyed.” (2) On the north-east, Īśa or Īśâna, a form of Śiva, the chief of the regents, on his vehicle the bull (Nandi), with his wife Durgâ, each protected by an umbrella. (3) On the east is Indra, the ruler of Swarga, who presides over the seasons and crops, seated on his elephant Airâvata, and accompanied by Indrâni or Śâchlī. He carries a thunderbolt (*vajra*) in his right hand and a club in the left. (4) On the south-east is Agni, the god of fire, riding on a grey goat, and holding in his hands the sacrificial implements and materials. His wife is Swâhâ, the daughter of Daksha. (5) On the south is Yama or Dakshinâśâpati, the Hindu Minos, god of death and judge of hell. He carries a mace and a noose and rides on a black buffalo. Clûtragupta, the recorder, is perhaps intended by the figure in the upper left corner in the panel. (6) On the south-west, Nirriti, the personification of Decay or Destruction, is the regent, riding on a giant having a crooked sword. (7) On the west is Varuna, the Ouranos of the Greeks, god of night and of the waters, having a sword in one hand, and along with Varuni, the goddess of wine, riding on the Makara, a fabulous animal corresponding to the Karkharas or Capricornus of western nations: And (8) On the north-west is Vâyu, the wind-god and king of the Gandharvas, riding upon a stag, though his vehicle is often a Bhûta or demon, while Varuna's is a stag.

The Śiva or Īsvara in the central panel is Nâtesha, dancing his *tândava*, eight armed, holding up his elephant hide (*gajachurma*)—the skin of Gajâsura, a demon killed by him. In a Vaishnava temple this central compartment would be filled with a figure of Vishnu. The small figures in each of these panels are doubtless the respective *gana* or attendants of the regents.

Sometimes in panels of this kind the planets are represented in this order:—Budha or Mercury on a bird, on the north; Vrihaspati or Jupiter, on the north-east; Sûrya or the Sun, on the east; Sukra or Venus, on the south-east; Mangala or Mars on a horse, on the south; Ketu or the ascending node, on the south-west; Śani or Saturn on an elephant, on the west; and Chandra or the Moon on a stag, on the north-west.

Similar roof panels, varying in the details and representations, are found in the Badâmt caves of the sixth century; and sometimes, as at Bankapur, the panels are filled with pretty rosettes or lotus flowers, suggestive of further variations in applications in modern art-work.

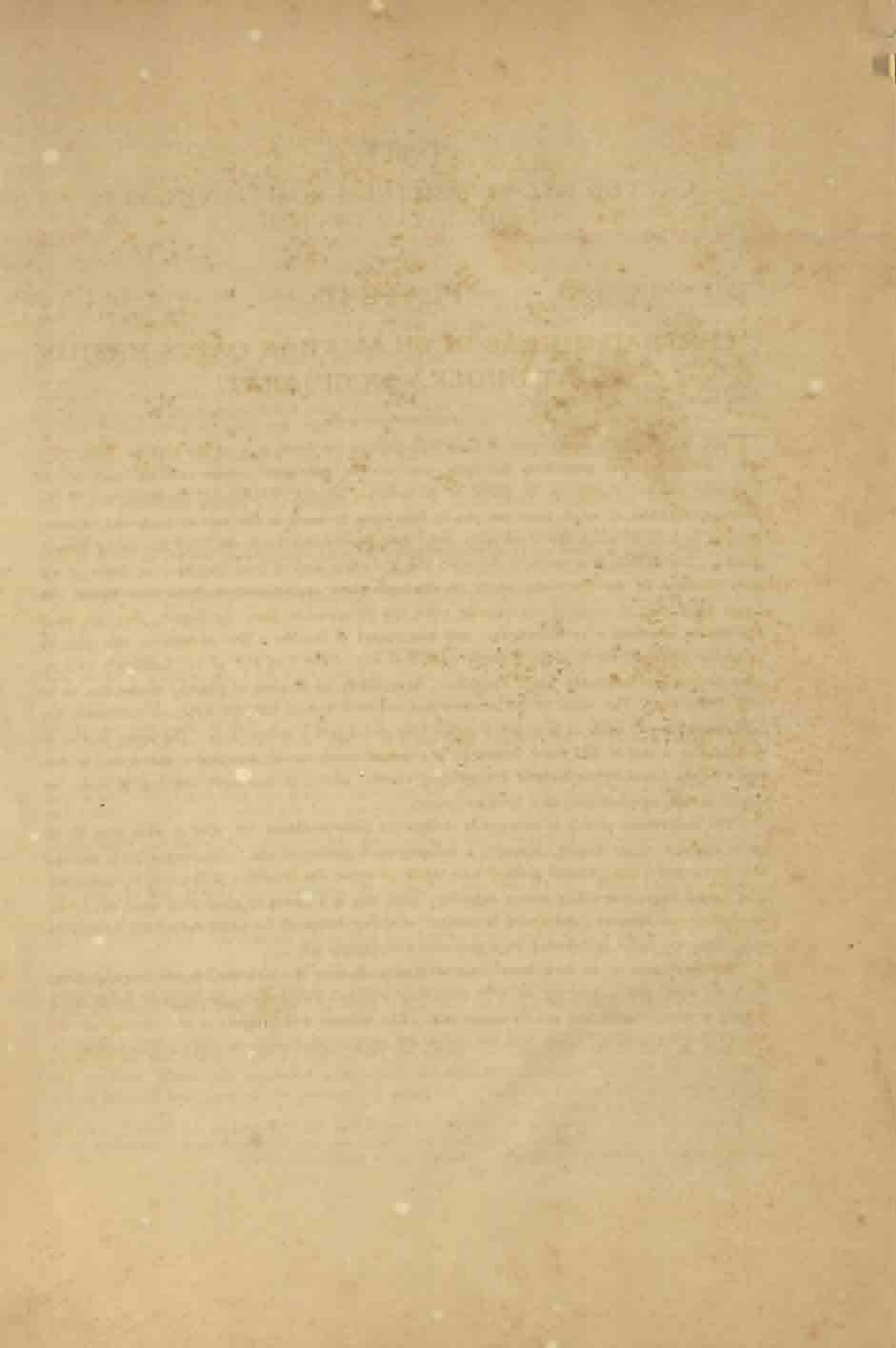


PLATE II.

CENTRAL MIHRÂB IN BILÂL KHÂN QÂZÎ'S MASJID AT DHOLKÂ, IN GUJARÂT.

THE Muhammadan architecture of Gujarât is perhaps the finest style of the kind in India. The buildings there date from the early part of the fourteenth century till the end of the sixteenth, and are chiefly to be found at Ahmadâbâd, Dholkâ, Champanir, Kambhay, etc. The *Mihrâb* or *Qibla*, of which there are usually from three to seven in the west or back wall of every mosque, in front of which the worshippers make their prostrations, as in that they are facing towards Mekka. The *Mihrâb* is a recess in the wall, and is directly derived from the Apse or Absis of the early Basilicas of the Christians which the Muhammadans appropriated in Syria and Egypt. In Upper India they are often of considerable width and polygonal in plan. In Gujarât they are small and mostly semicircular or rectangular, and constructed of marble. The example in this plate is somewhat damaged, but is an exceedingly good specimen of the first half of the fourteenth century, when Gujarât was under the Delhi Padshâhs. It is drawn to a scale of 1-20th, or 6-10ths of an inch to the foot. The width of the entrance was 2 feet 8 inches, but the left-hand colonnette has been broken away; inside it is 3 feet 6 inches wide and 2 feet 3 inches deep. The upper portion is roofed in by a sort of half dome formed by a series of neatly-carved mouldings, shown in the section. In the centre of the back is a projecting rosette, where, in the north and east of India, we should have a representation of a lamp or censer.

The architecture of this is structurally trabeate; a pillar in almost full relief on each side, Hindu in the richness of its details, supports a well-projected cornice of which the lower edge is enriched with guttæ and a large central pendant boss, while its upper line is broken at intervals by small vertical carved facets resembling *crosses entablées*. Over this is a recess in which was once an Arabic inscription, now removed; and above is another moulding supported by neatly-carved blocks at each end. This was again surmounted by a pediment now chipped off.

The inner area of the front has a colonnette on each side, of which the left one is gone, carved like ivory work, and supporting an arch beautifully enriched with surface carving, and inside which is hung another, smaller and strictly ornamental. The richness and harmony of the carving on this *Mihrâb* deserves a careful study, and the design will suggest applications in silver and ivory work.

PLATE III.

DOOR FROM THE TEMPLE OF KÂŚIVISVEŚVARA AT
LAKKUNDI, IN DHÂRWÂR.

THOUGH very different from the *Mihraḥ* in Plate II, it will be seen that a shrine door, not differing very greatly from this, may have suggested the chief features of the *Mihraḥ*.

The scale of this drawing is 1-12th, or 1 inch to a foot. This door is from the shrine of one of the finest temples at Lakkundi, and is purely Chalukyan, belonging probably to about the middle of the eleventh century. The entrance measures 2 feet 9 inches by 5 feet 8 inches, and though too small for a convenient door, its proportions are exceedingly good. The variety of exquisite detail in the ornament on the three facias within the pilasters must be studied on the drawing. It is so delicately chiselled and in parts so undercut as to be almost detached from the stone. The pilasters support a cornice, from the centre of which depends a shield bearing a figure of Gaja-Lakshmi or Śrī, the goddess of prosperity, bathed by the elephants. On the upper side of the cornice were elephants, soldiers, etc., spiritedly executed, but which are now much damaged. Above this is a frieze, divided into five panels by carved uprights, and containing mythological figures—Śiva and Pārvatī with their attendants occupying the centre, Brahmā and Vishnu the next to left and right, and devotees the end panels. This frieze is capped by a projecting moulding enriched by a leaf ornament that appears in all ages of Hindu art. Thus far the door is complete and further additions would only detract from it, and the architect seems to have felt this, and in filling the recesses between it and the pilasters on each side supporting the roof, he has stopped the rich floral ornament below the level of the capitals of the door pilasters, so as to sever its connexion with them. The whole design is here saved from the flatness that such abundance of ornament might have caused, by the recessed lines giving dark shadows, which break up the mouldings into separate masses and throw the facias and pilasters into greater prominence.

PLATE IV.
CEILING PANEL FROM A HINDU TEMPLE AT
VADNAGAR IN NORTHERN GUJARÂT.

VADNAGAR is a very ancient town in the Gaikwar's territory in Northern Gujarât. It is the original seat of the Nâgar Brâhmans, and in early times it seems to have been a capital or principal city, and was then called Ânandapura. It has still some eight Śaiva and two Jaina temples, but in the sixteenth century Abul Fazl mentions that it had three hundred temples.

This ceiling-slab differs very markedly from that on Plate I, and is quite unique. The central circle, within a border of rosettes, is filled by sixteen men arranged with their legs intertwined towards the centre, each holding a double-edged sword in his right hand and which passes behind his head, whilst with his left he clasps the right hand wrist of his neighbour. The spandrels have been ornamented with grotesque faces (*Kirttimukhas*) and tracery, but three of them are chipped off.

PLATE V.
A CEILING PANEL FROM ANHILWÂDA PÂTAN,
NORTH GUJARÂT.

ANHILWÂDA PÂTAN was, under the Chalukyan Kings of Gujarât, from the beginning of the eleventh century till the thirteenth, one of the most splendid cities of India, whose fine temples and other buildings were destroyed in the fourteenth century and subsequently, to provide materials for the building of Dholkâ, Ahmadâbâd, etc. The scale of the drawing is 1-10th of the original, which measures 7 feet 6 inches square. It must have come from one of the old temples, and may belong to the eleventh century. It is in three slabs, and is a marvel of boldly-executed free tracery, almost unequalled in India. Much of the work is undercut, and though injured in parts, is still in remarkable preservation, owing probably to its containing no figure device of any kind, but consisting entirely of floral tracery.

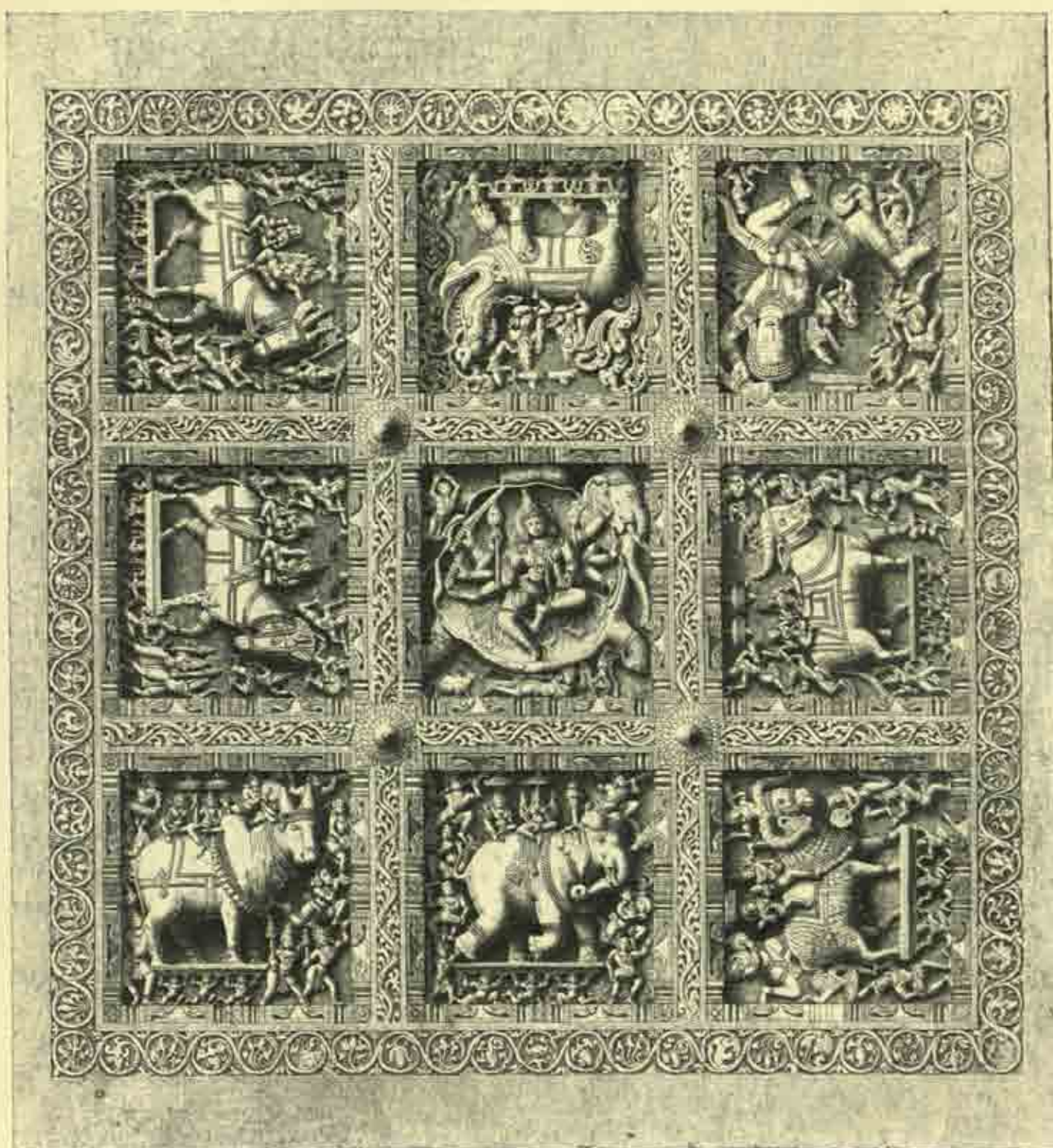
PLATE VI.
CENTRAL AREA IN THE ROOF OF THE MANDAPA,
OR HALL OF THE TEMPLE AT ITTAGI.

ITTAGI is a village near Kokkanūr, in the Haidarābād territory, to the east of Lakkundi, and has a very fairly well preserved Chalukyan temple of the early part of the eleventh century,—indeed one of the best examples left. Many of the details of this temple are enriched with elaborate carving well deserving publication.

The Plate represents the central area of the roof of the pillared *mandapa*, 8 feet 4 inches square, to a scale of 1-15th of the original, or 8-10ths of an inch to a foot. As the section shows, this roof is deeply recessed, and rises as a sort of pyramidal dome of eight sides, and terminated, at 4 feet above the level of the spandrils from which the octagon takes its rise, in a slab 2 feet 9 inches square, which is sculptured with a figure of Śiva as Natesa. The spandrils, by which the square area of this bay of the roof is converted into the first octagonal tier above it, are carved with *Kirttimukh* faces and tracery, largely under-cut and in almost entire relief; and the rich dark shadows thus produced set off, as a background, the beautiful scrolls of arabesque which flow in rich profusion from the mouths of the *Kirttimukhs*. The lower edges of each of the three tiers of octagons above this, which contract the area, are carved with belts of variegated scroll carving, each about a foot above the other. The inner faces of these tiers are filled with sculptures of mythological figures,—the middle fascia representing the eight *Dikpālas*. The octagon is again reduced to a quadrangle, with four side borders filled with figures of gods among tracery. The lower fascia of this square panel, as seen in the section, is carved with musicians beating drums, etc.

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E. J. Hootman, *Editor* (j.hootman@unh.edu)

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Carved Stone Ceiling

Representing the Legends of the Eight Arms of the Compass
FROM THE VILLAGE OF SANGIATTI IN THE DHARWAR DIST.

Survey of Italy 1800-1801. Italy, 1800.

5. Year in THE WALL JOURNAL.

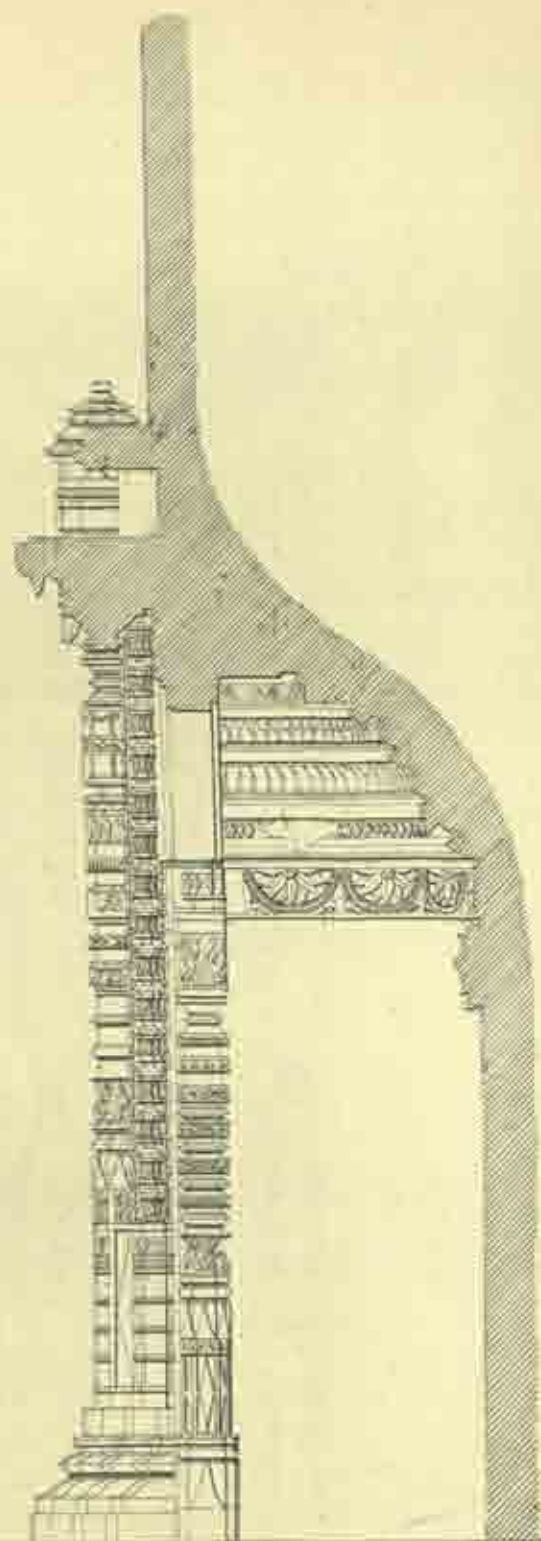
5-26. Summary: 100% A, 100% B.

W. YAMAGUCHI AND T. KATO "GUMMERS"

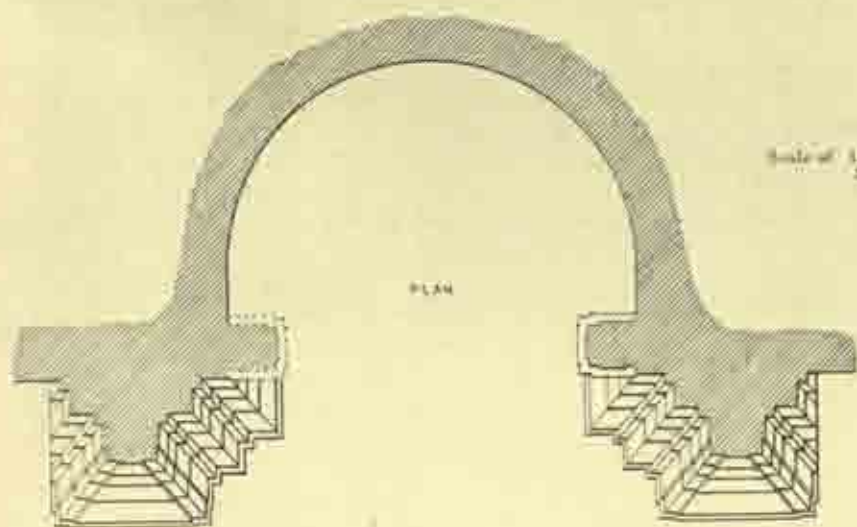
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FRONT ELEVATION.



SECTION.

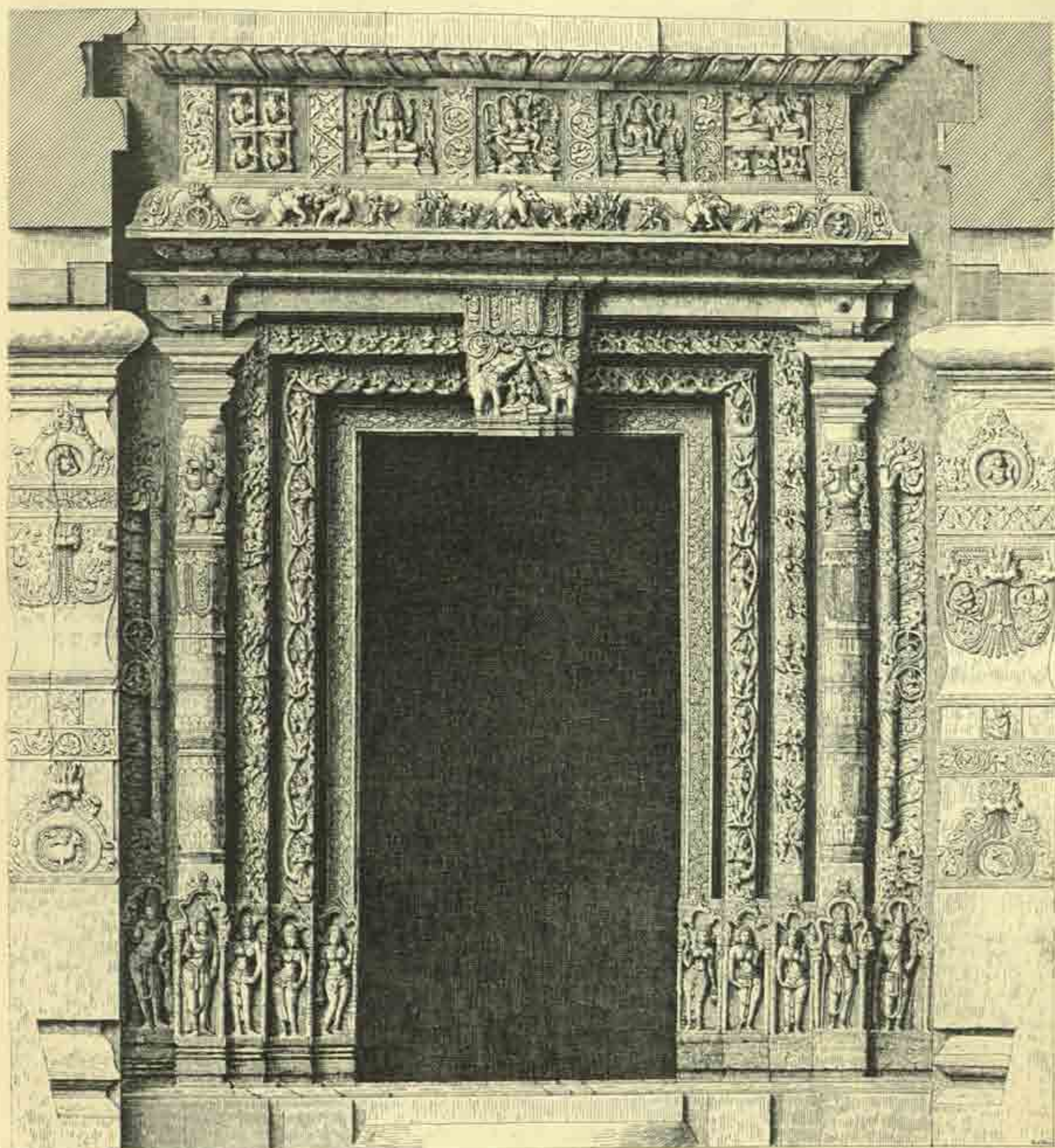


PLAN

Scale of 12" = 10'

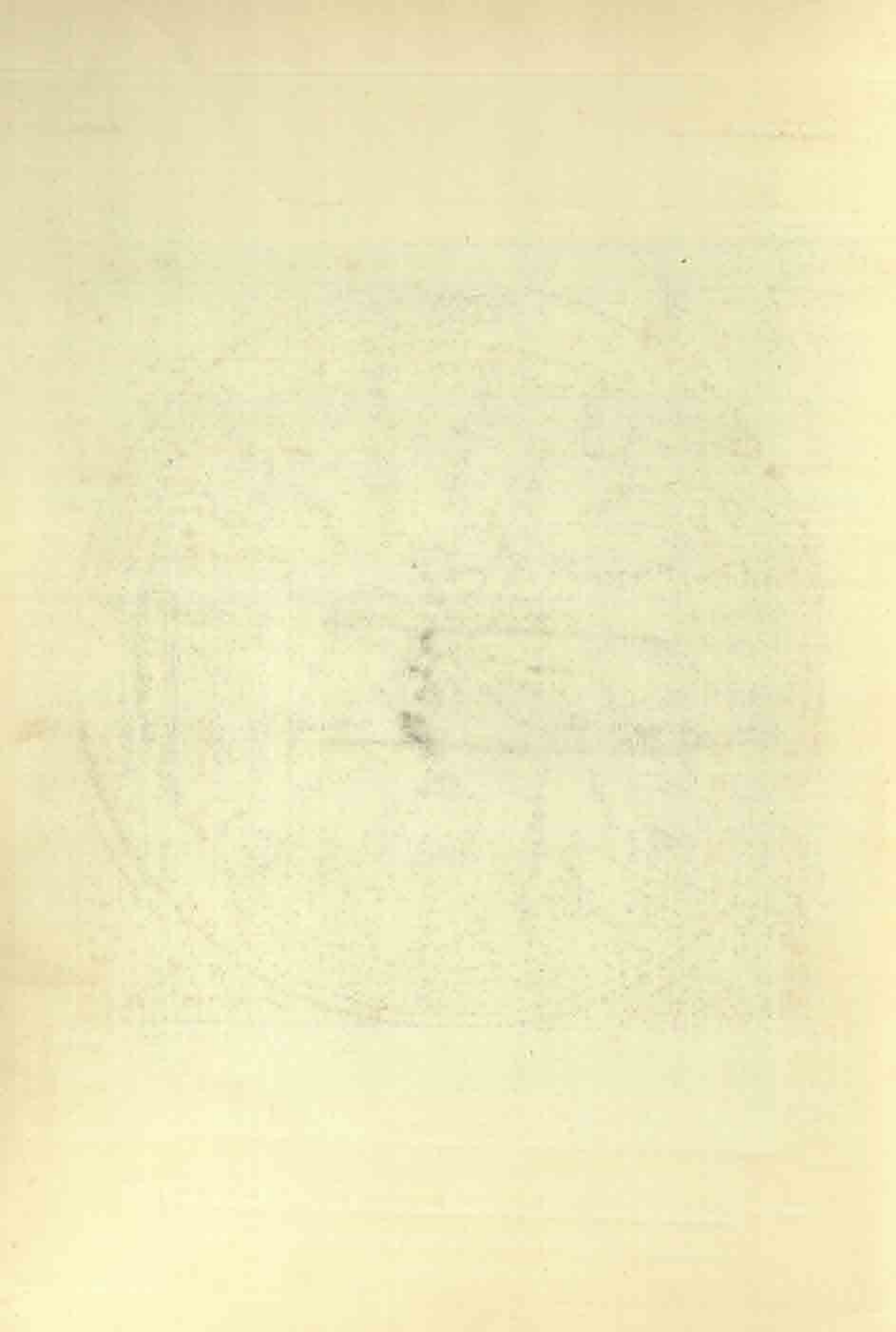
GENERAL VIEW OF THE PRABHAVALI ARCHWAY AT DHULEA, INDIA.

ARCHAEOLOGICAL SURVEY OF INDIA

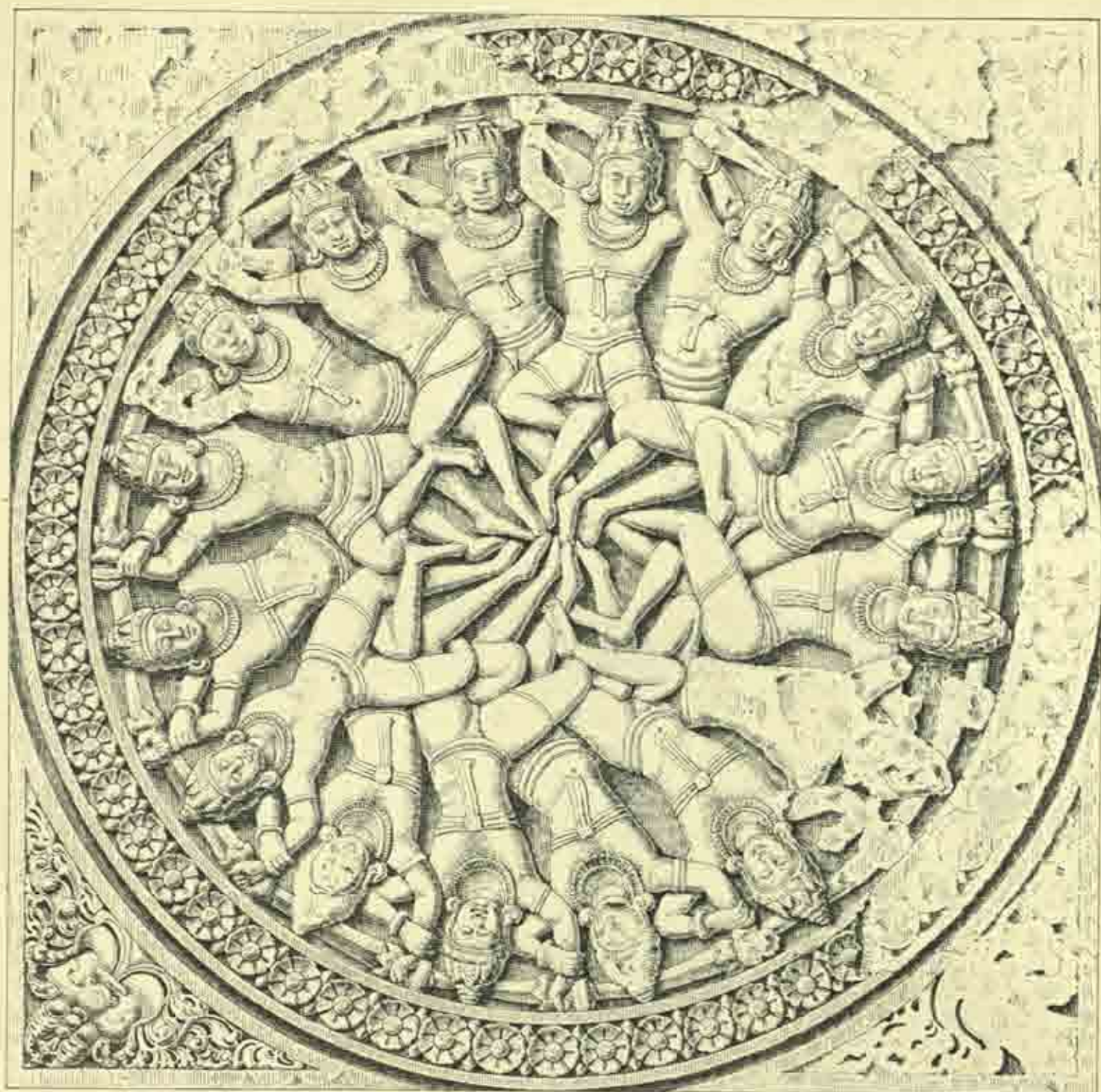


SCALE OF 1 2 3 4 5 FEET.

DOORWAY FROM THE TEMPLE OF KAVIYUVAVALA, AT LAKSHMI NARAYAN DISTRICT



ARCHAEOLOGICAL SURVEY OF WESTERN INDIA



CHILICARTS

FROM A HINDU TEMPLE AT MADHAKA, WESTERN INDIA

PLATE IV

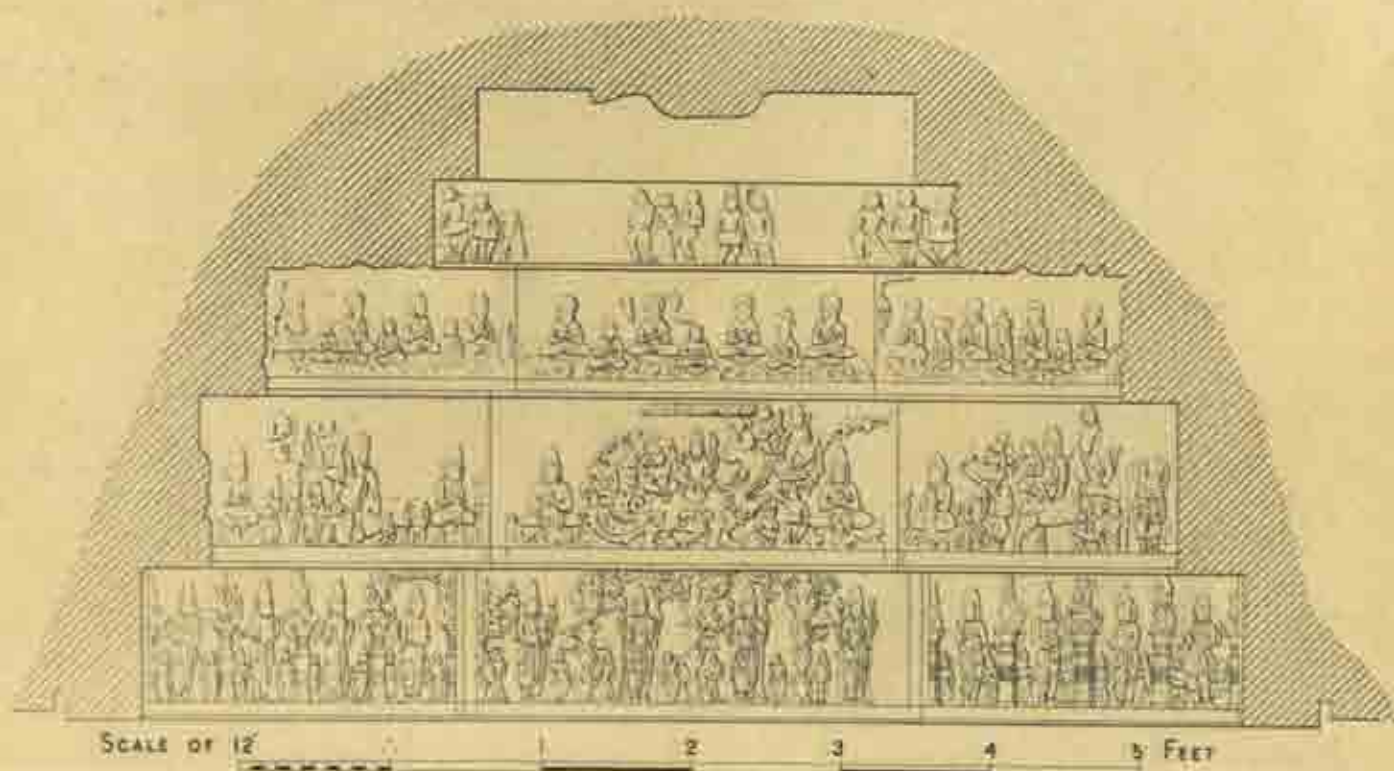


CEILING PANEL

FROM THE TEMPLE OF THE GODS

At the Temple

Survey of India Office, Calcutta August 1887



CENTRAL BAY IN THE ROOF OF THE MANDAPA OR HALL, OF THE TEMPLE AT ITTOLI,
 near from LARGUNDI - about A.D. 1000.

PLATE VII.

TYMPANUM OVER THE RECESSES ON EACH SIDE OF THE PRINCIPAL MIHRÂB IN THE ATALA MASJID AT JAUNPUR.

THE Atala Masjid at Jaunpur was built by Ibrahim Shâh Sharqi, and finished in 1498 A.D. The style of architecture employed by the Sharqi Kings has characteristics of its own,—various features in it reminding us of Persian influences.

The drawing on this Plate is to a scale of 1-5th of the original. It represents the tympanum of a niche by the side of the principal Mihrâb in the mosque, and presents a good specimen of the carved decorative work of this style, filling up the area in a manner both pleasing and effective. In the centre is a large *patera* in bold relief and having three concentric circles of leaves, the field around being embellished by raised carving of radiating arabesque design, formed chiefly of moulded trefoil zig-zags, filled in with rosettes on a background of intricate tracery studded with stars.

This Plate has been published in the Archaeological Survey Report volume on the "Sharqi Architecture of Jaunpur," in which volume full details of the Sharqi style will be found. Other examples of decorative work from the same source will be given in the next and in some of the subsequent Plates.

PLATE VIII.

PANEL FROM ONE OF THE SMALLER PROPYLONS OF THE ATALA MASJID AT JAUNPUR.



THIS is another sample of the carved panels at Jaunpur, being taken from the façade of one of the smaller propylons that screen off the domes on the wings from view from the Court. It is drawn to a scale of 1-10th of the original,—the panel measuring 5 feet 6 inches square. It is placed just above the string-course over one of the small side entrances of the propylon. The border is considerably damaged, but bore a very pretty floral pattern. The field, in a circle, contains two squares interlaced and their sides so broken by lines connecting the third points all round as to form eight similar trapeziums, the centre being filled by a rosette.

PLATES IX & X.

TOMB OF 'UMAR IBN AHMAD AL-KÂZARÛNÎ AT KAMBHAY.

THESE two Plates present the elevations of the side and two ends of a white marble tomb at Kambhay, constructed in A.D. 1333, but unfortunately now much ruined. They are drawn to a scale of 1-20th, or 6-10ths of an inch to a foot. This tomb has been of exceeding beauty, but was greatly injured by the fall upon it of the dome which covered the great hall in which it stands. The head (on Plate X) has escaped with little injury, and on it may be studied the ingenious way in which the inscriptions have been made to subserve the purposes of ornament. In the centre of the upper part of this slab we have the larger *Kalimah*,—"I bear witness that there is no god but Allah, and that Muhammad is his worshipper and messenger," and, by lengthening the stems of the *Alefs* and *Lams*, this is made to fill up the arched space. Round the inner margin of this is engraved verse 256 of the second *Sûrah* of the *Qorân*; and below, on one side, the concluding sentence of verse 151 of *Sûrah* II, and on the other, part of verse 52 of *Sûrah* XXXVI. The outer margin all round is filled with the first twelve and a half verses of *Sûrah* XXXVI. In the lower half of the stone the inner margins contain verses 16 and 17 of the third *Sûrah*, and the upper portion of the centre bears verses 163—165 of the same chapter. Below this is the Epitaph of 'Umar ibn Ahmad Al-Kâzarûnî, who bore the title of Zaur-ul-Malik, and died 9th Safar 734 A.H.

The foot of the tomb is carved with trees, and the sides, with recesses containing lamps and conventionalised trees, with verses of the *Qorân* above and below. The base on which it stands is elegantly moulded. This belongs to the same period of the style as the *Mihrab* on Plate II,—indeed it dates from the same year.

PLATE XI.
MIHRÂB IN THE JÂMI MASJID AT BHAROCH.

LIKE Plate II, this also represents a *Mihrâb* with plan and section drawn to a scale of 1-20th, or 6-10ths of an inch to a foot. This one varies in details from the other and has a fine triple frieze above, in the uppermost section of which is an inscription containing sentences from the Qorân, but no date. The whole is very richly carved, and strongly manifests the influence of Hindu taste on Muhammadan architecture. The boss on the back of the interior, consisting of a boldly-cut floral volute, is distinctly Hindu in conception and belongs to Gujarât art.

PLATE XII.
SOFFIT OF THE CENTRAL ENTRANCE OF THE
ATALA MASJID AT JAUNPUR.

LIKE Plates VII and VIII, this is from the published volume on the Sharqi Architecture of Jaunpur, and is drawn to a scale of 1-10th of the original. It represents the soffit of the lintel to the principal entrance of the mosque, or that leading into the great chamber under the grand dome and in front of the principal *Mihrab*. It is of one slab of sandstone, and is carved with a large *palera* in the centre in bold relief; the border is of floral scroll-work, and the rest is broken up with eight-cornered panels and intervening crosses, filled in with foliage ornament.

PLATES XIII & XIV.
PANELS ON THE FRONT WALL OF THE JÂMI
MASJID AT AHMADÂBÂD.

THESE two panels from the front wall of the Jâmi Masjid at Ahmadâbâd are drawn to a scale of 1.5th of the originals. The mosque was built in A.D. 1423, and four of these panels serve to ornament the walls between the open wings and the centre of the building. They are cut in high relief, are massive, and attract the eye. This style of work has also been illustrated in Plate V, and an instance of its application was noted in the back of the Bharoch *Mihrah* (Plate XI). In all the older examples of this sort, the foliage is highly conventionalised and stands out boldly in projecting scrolls of different depths, cut with great freedom and sweep of outline. Such an arrangement of scroll-work is specially Hindu, and was used by them from a very early date, as may be seen in the carved heavy masses in high relief on the old temples of Virupâksha at Pattadakal in Dharwar and Kailâsa at Elurâ,—both of the 8th century A.D.

These designs might be reproduced very effectively in *repoussé* metal-work and otherwise.

PLATE XVI.
DOOR TO THE COURT OF HILÂL KHÂN QÂZI'S
MASJID AT DHOLKÂ.

THIS Plate ought to be studied along with Plate XIX, for the latter is manifestly the type from which this design was derived, and while this is rich and elaborate in minute details, the older Hindu work is architecturally the better of the two. The lower part of the jambs is here much weaker in design than in the prototype, chiefly because the ornament is too small in conception for its position; the two steps, of a foot each, are much too high and detract from the proportion of its parts; evidently the architect hampered himself with the base moulding of the jambs, which he adjusted to those of the pillars and pilasters of the hall. The older door was better here. The working out of the five thin shafts on each jamb, so as to detach them except at the numerous fillets, shows what pains the workmen bestowed on their labours. The plan and section will show the projection of the principal parts. The scale is 1-20th, or 6-10ths of an inch to a foot.

PLATE XVII.
CENTRAL MIHRÂB OF THE JÂMI MASJID AT
DHOLKÂ.

THIS Mihrâb, also from Dholkâ, is to the scale of 1-20th, and is nearly entire,—part only of the right side marble jamb having been injured and the inscription removed from the frieze. It dates from about the middle of the fourteenth century. In this example the plan is not semicircular but oblong; but it is roofed in the same way as the others, and on the back it has not merely the rosette common to the Guzarât mosques, but, dependent from it, the lamp which the Musalmân conquerors had brought with them from Upper India, supported here by an elaborate display of chains and foliage. The pediment in this case is a characteristic example of the style of these prevalent at Ahmadâbâd and elsewhere in Gujarât.

Worked in silver, with but few modifications, such a form would present a pretty case for a small time-piece.

PLATE XVIII.

ONE OF THE MARBLE TOMBS OF THE QUEENS OF AHMAD SHÂH AT AHMADÂBÂD.

CLOSE to the Dargah of Ahmad Shâh, which adjoins the Jâmi Masjid at Ahmadâbâd, and entered by a lofty gateway, is a large square enclosure, surrounded by a trellised corridor, but covered by no dome, are the tombs of the inmates of Ahmad Shâh's *sandâna*. The Plate represents one of the two principal of these,—that of the Moghlâl Bibî, of white marble. These tombs “are beautiful specimens of sepulchral art, appropriate to their object, and elegant both in form and detail.”

PLATE XIX.

HINDU ENTRANCE TO THE COURTYARD OF THE TÂNKA MASJID AT DHOLKÂ.

AS already mentioned, Plate XVI has to be studied along with this one, which, however, is drawn to the larger scale of 1-12th or 1 inch to a foot. This Hindu example has belonged to one of the temples erected in the twelfth or thirteenth century, under the Wāghelas, whose original residence seems to have been at Dholkâ,—which continued to be their capital also when they came to exercise regal power on the Chalukya or Solanki family becoming extinct. The remarks on Plate XVI may be consulted with reference to this. The Muhammadans having destroyed the human faces in the sculpture, seem to have considered that an entrance, otherwise so good, might be convenient for the Court of their sanctuary, if it did not also form a standing protest against idol-worship.

PLATES XX AND XXI.

MIHRÂBS FROM THE JÂMI MASJID AT JAUNPUR.

THE Jâmi Masjid or Great Mosque of Jaunpur was founded by Ibrâhîm Shâh Sharqî in A.H. 842 (A.D. 1438) and is variously stated to have been completed in A.D. 1448 or in 1478. It is 235 feet in length by 59 deep, and has a court in front, 211½ feet deep by 217 wide, which was surrounded by three storey cloisters, but they were largely destroyed by Sikandar Lodi. The central compartment or hall of the masjid is covered by a dome 39½ feet in diameter and 67½ high, in front of which stands a noble propylon or façade 84½ feet in height. On each side of the dome is a compartment 44½ feet by 25½, divided into two storeys by a stone floor supported on pillars,—the floors forming *zanâna* or women's galleries, and reached by stairs from the ground floor. Beyond this, on each side, is a hall 40 feet by 49, covered by a bold pointed vault reaching to a height of 44 feet.

In the west wall of each of the *Zanâna* galleries are two *Mihrâbs* or *Qibla-gâhs*,—places towards which the Musalman turns in prayer, because in so doing he looks towards Mecca. On the ground floor also there are, for the male worshippers, no less than fifteen *Mihrâbs*. These *Mihrâbs* are always in the form of an arched recess or niche, of greater or less dimensions; and generally there is carved on the back of the recess an ornament representing a hanging lamp. The origin of these *qiblas* is not far to seek: the first mosques used by the Musalmans were the churches of the Eastern Christians in Syria, Persia and Egypt, and the apse, towards which the audience faced, gave the idea of the *Mihrâb*, and its central lamp continued to be copied in stone after its origin had been quite forgotten and the apse itself contracted to far less than the breadth of the aisle at the end of which it stood, and, at first, almost filled.

The *Mihrâbs* are usually the most carefully decorated parts of the masjids. In Gujarat they are mostly of marble and carved with the utmost care in great varieties of pattern, of which specimens have been given in Plates II, XI, and XVII. In Upper India they are usually of sandstone, as are these from Jaunpur. Plate XX represents one of the two in the north *Zanâna* gallery, and Plate XXI, one of those in the south gallery. They have appeared among Mr. Smith's architectural illustrations in *The Sharqî Architecture of Jaunpur*. In plan and general design they are very much alike. The principal difference is between the architraves,—the carving of that surrounding the *Mihrâb* in Plate XXI being of a quite different character from the other. Again, the angles of the architraves in the former are chamfered and ornamented with facets, while those in Plate XX are square and channelled on each side of the field of carving. The central portions are recessed about 1' 8" from the face of the wall, and are arch-panelled and cusped and from the crown of the arch hangs the lamp ornament,—much disguised in these instances. The space between the central area and the architraves is filled by a connecting series of angle-shafts, formed of small octagonal balusters and ornamented square dies, over the heads of which cusped arches are turned. The spandrels between the architraves and the extrados of the arch are panelled, moulded, and decorated with rosettes. The face of the tympanum of the inner arch is relieved by a boldly carved *patera* or rose. The pilasters on each side also present examples of the character of the capitals employed in this 15th century mosque.

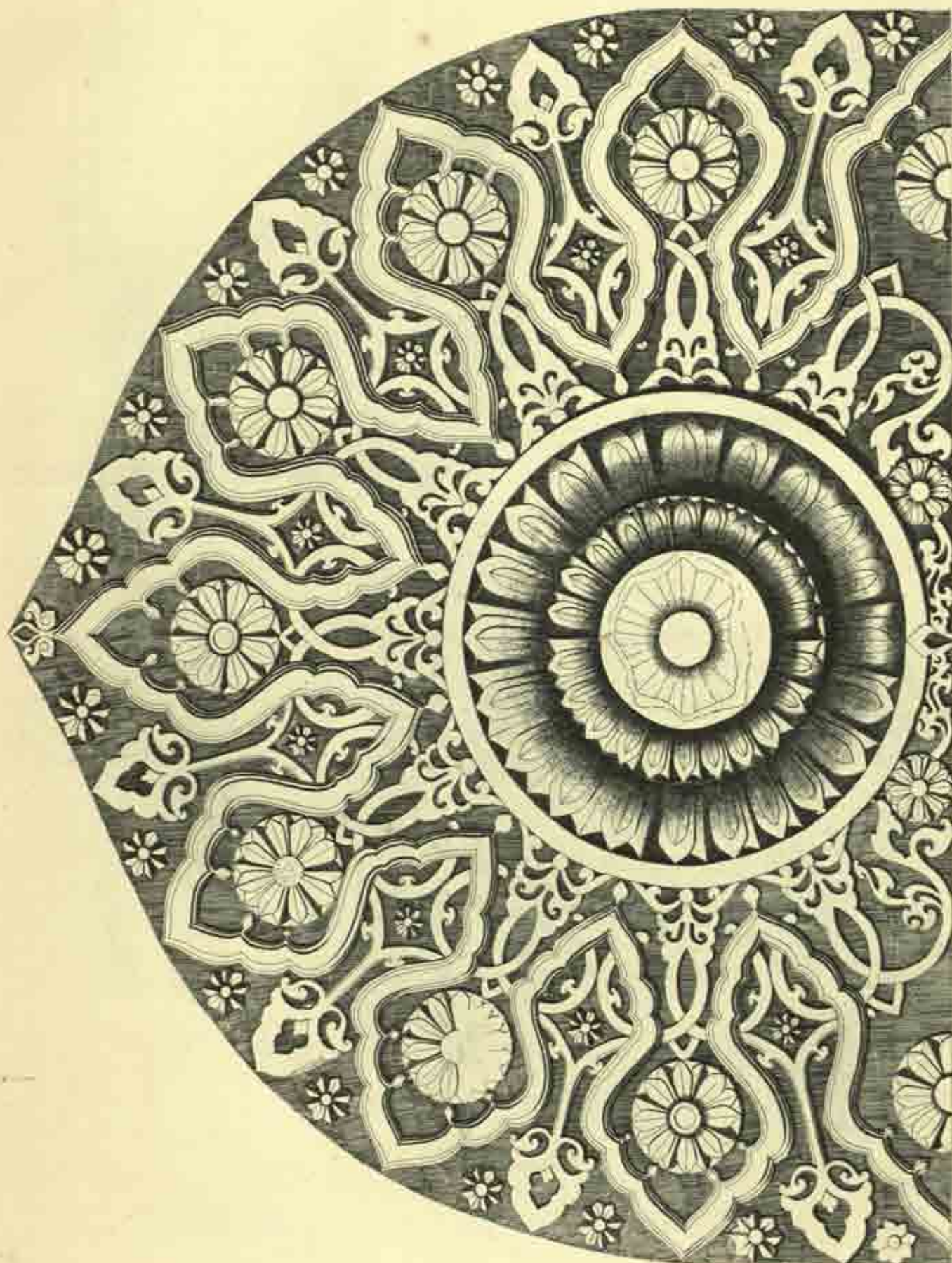
PLATES XXII, XXIII, AND XXIV. ROOF PANELS FROM THE JÂMI MASJID AT JAUNPUR.

THESE three plates, also taken from the Archæological Survey volume on *The Shargî Architecture of Faunpur*, present very characteristic examples of the surface decoration employed in the Muhammadan style of Northern India in the 15th century. The Zanâna galleries, described above, are oblong, and each is divided by square pillars into three aisles, with five pillars between the central and each side aisle. These support horizontal architraves which divide the roof into eighteen cassettes or panels, nine of them smaller than the others, and about half in each gallery are carved in beautiful patterns of low relief.

The first panel on Plate XXII is from the south-west corner of the south Zanâna gallery, its longest dimension being from east to west, and the left side being next to the back or west wall. The second figure on the same plate represents the panel second from the back and borne between the innermost four pillars. On Plate XXIII is a third panel from the same roof, being that behind the preceding and just to the north of the first. It is over the bay immediately in front of the Mihrâb, already given from this gallery. The panel to the left of it is somewhat similar to the corresponding one in the south-west corner, but differs in details, as shown on the lower margin of the drawing.

In Plate XXIV two panels are given from the roof of the north gallery, presenting further varieties of decorative treatment. The upper drawing is from the centre of the roof, and the lower is the second from the front in the north side. Both are very richly carved, and though leakage through the roof has rotted parts of the stone, they are still in remarkable preservation.

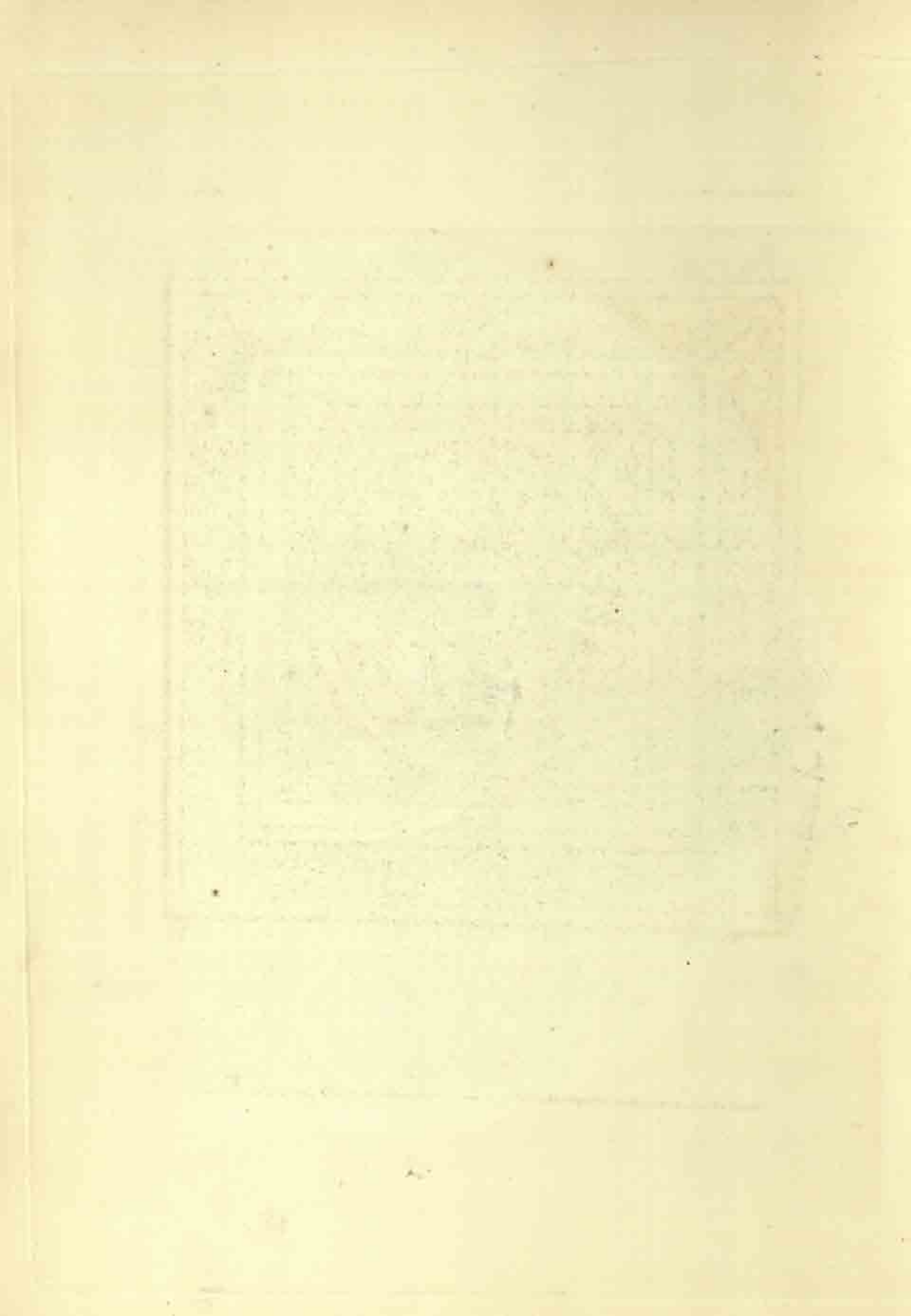
It hardly need be pointed out how fitted these patterns are for designs whether in wood, plaster, stone or silver, and in what a variety of circumstances they may be applicable.

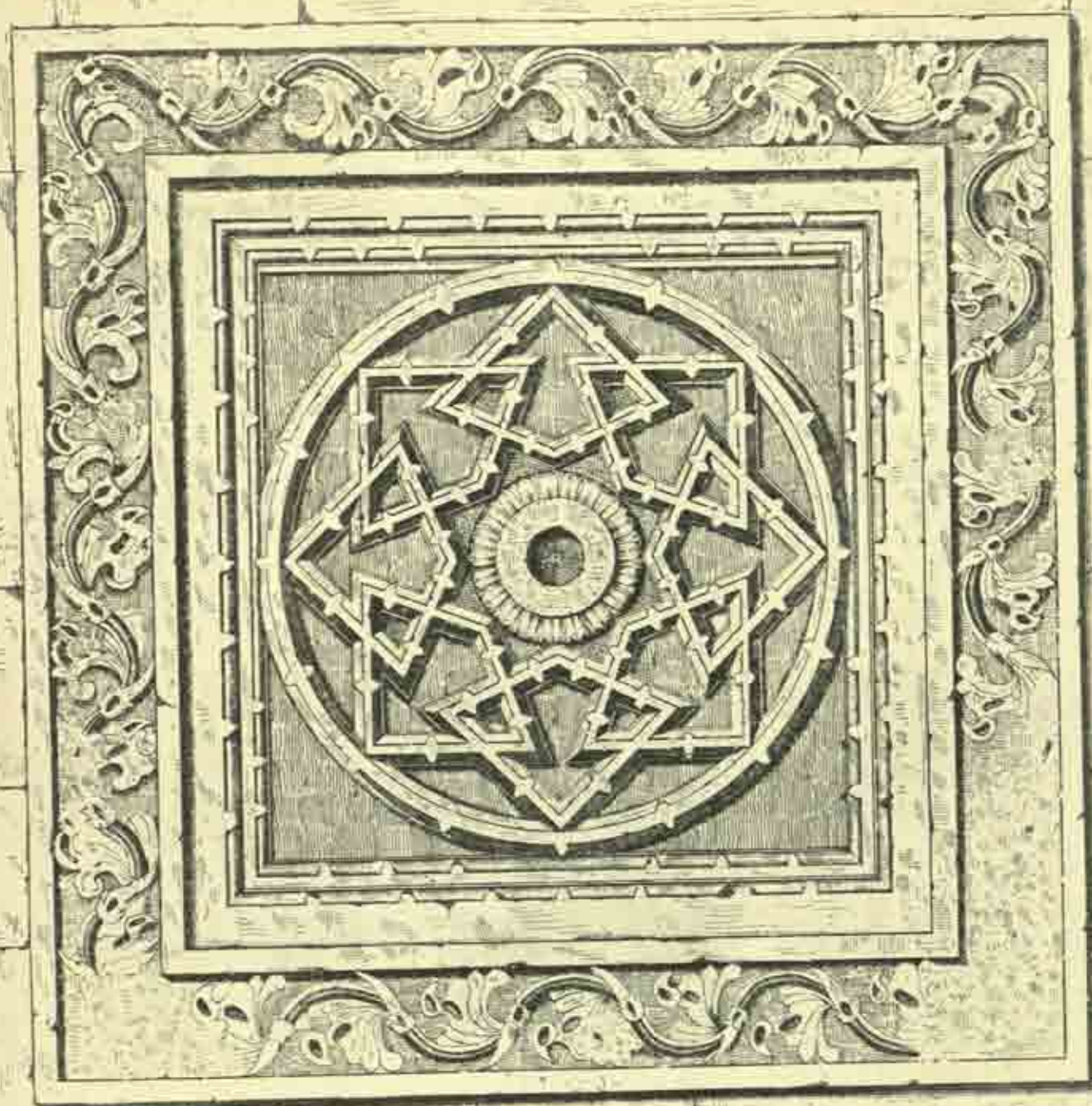


SCALE OF 1" = 1' 2" 3" 4" 5" 6" 7" 8" 9" 10" 11" 12"

SYMMETRY OF THE RECESSES ON EACH SIDE THE PRINCIPAL MEDALLION

NOTES

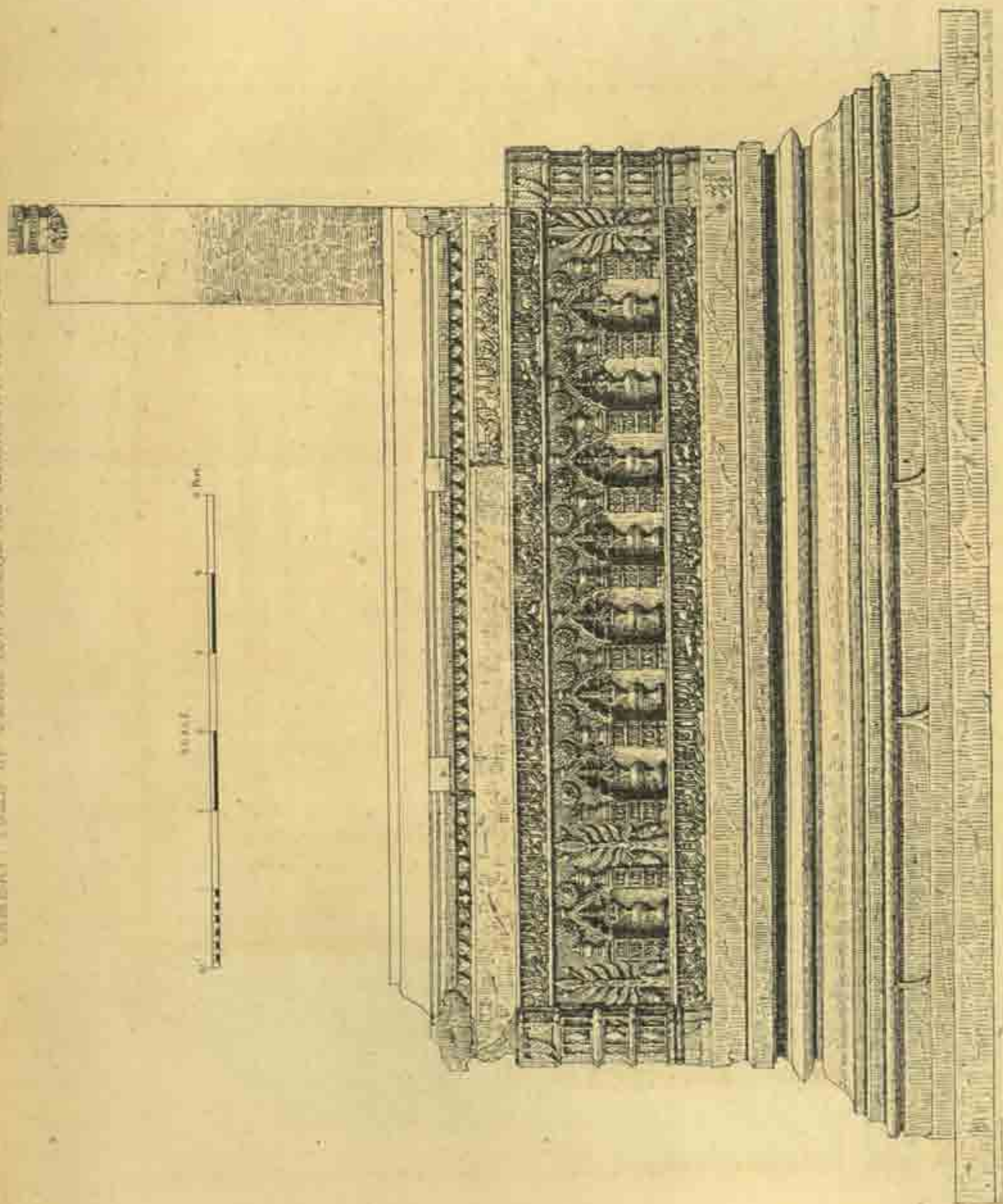




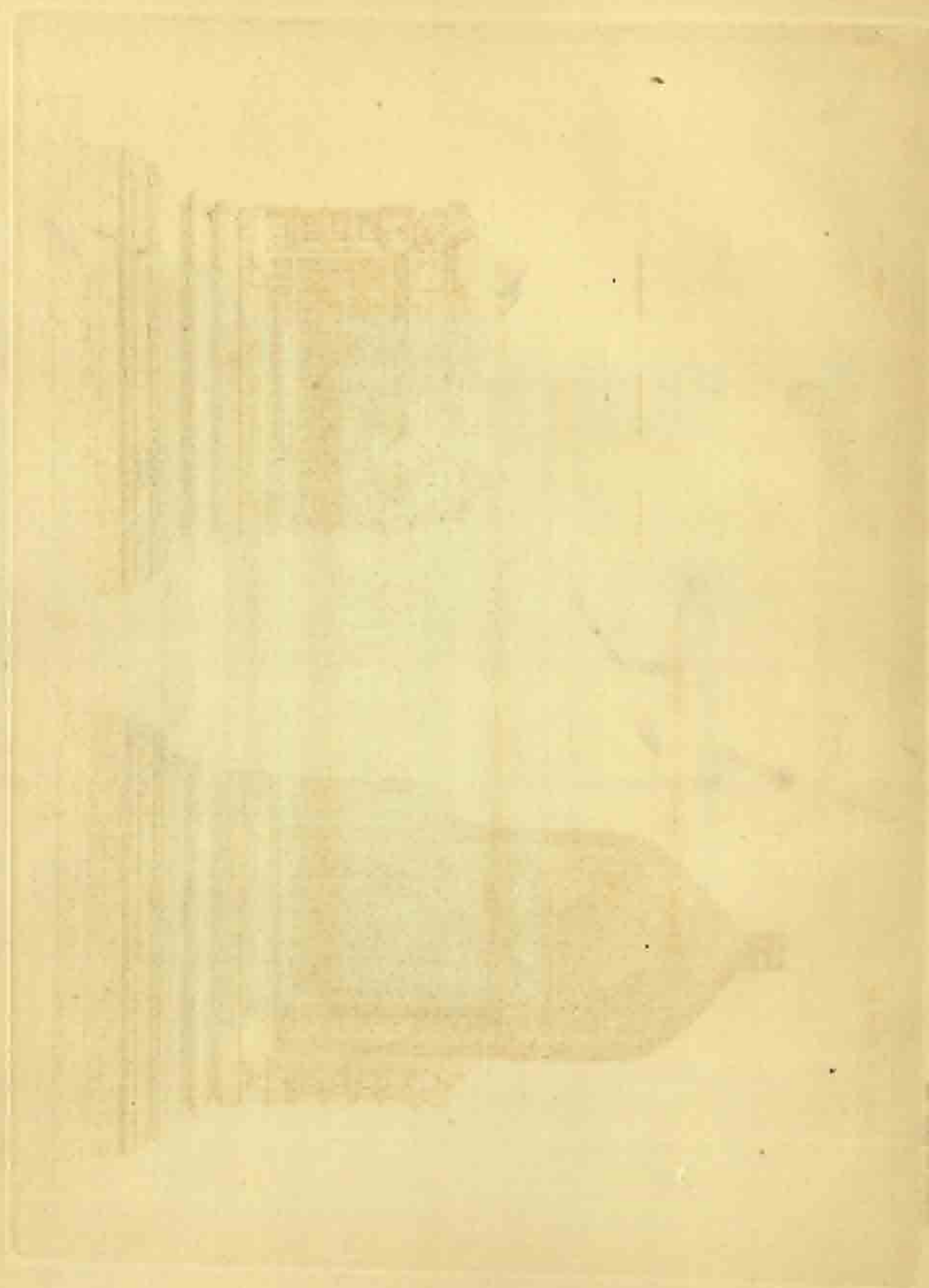
FRONT ON THE SOUTHERN SMALLER PROPYLEON OF THE MUSEUM

Wm. H. Smith, Jr.

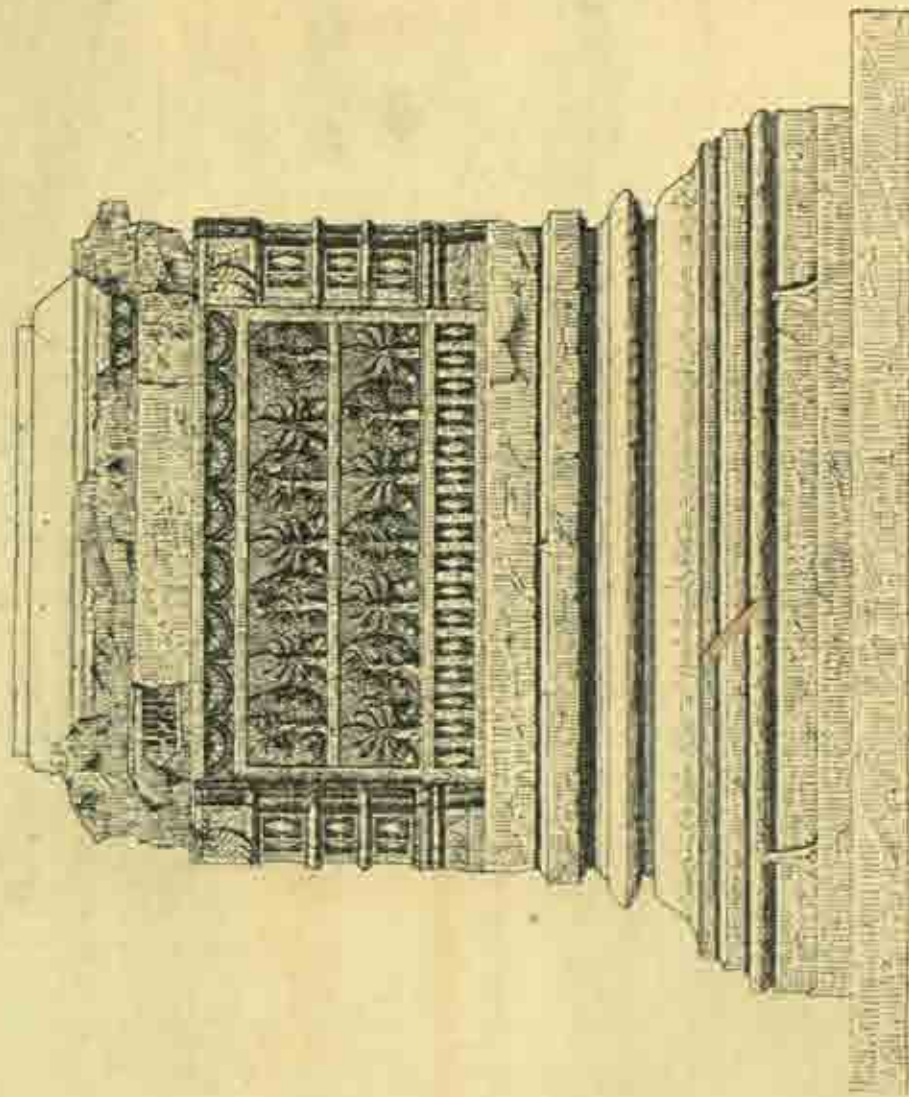
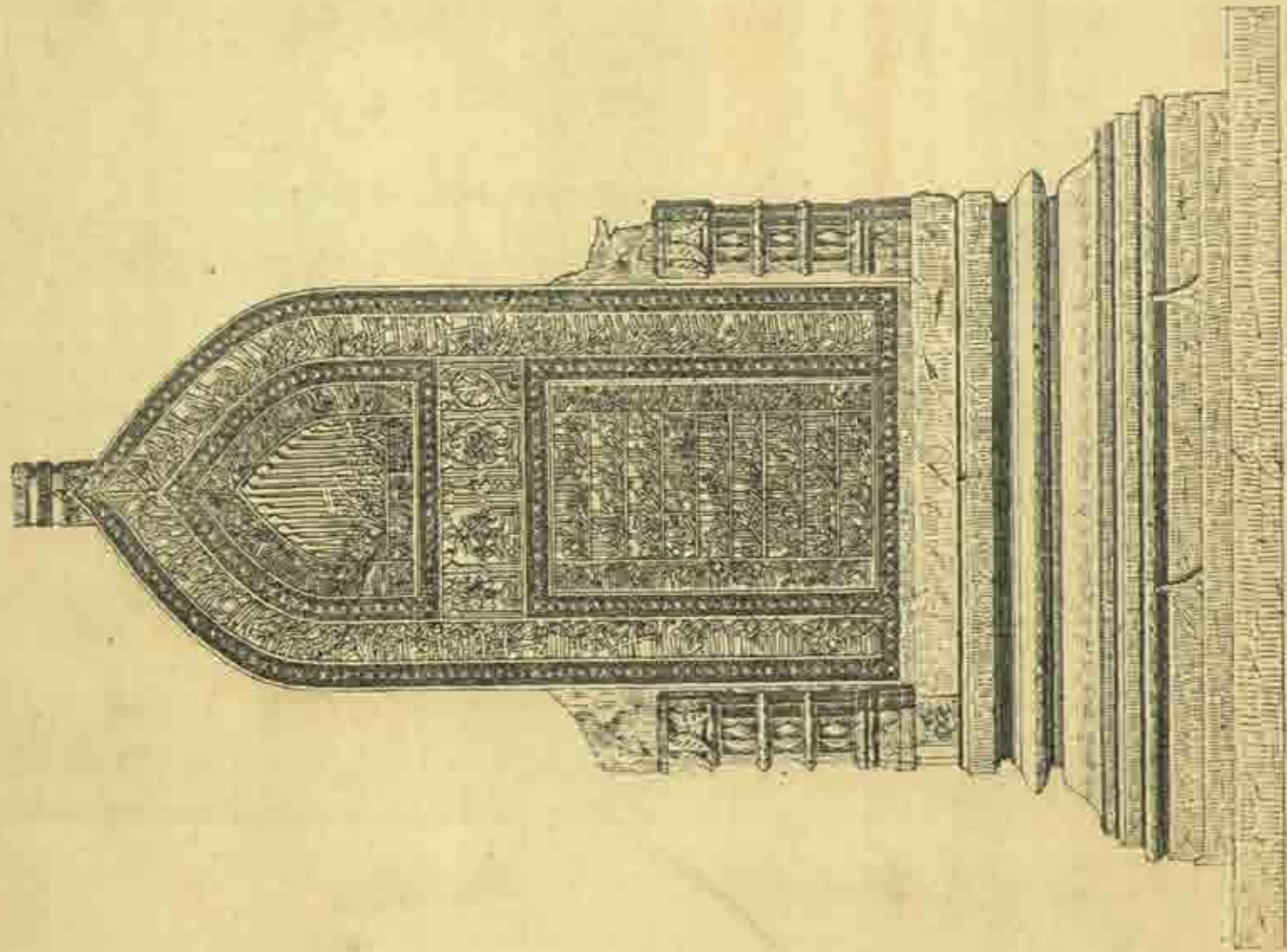
CAMBAY TOMB OF UMMAH ISH AHMAD-AL KASABUHI A.D. 1333.



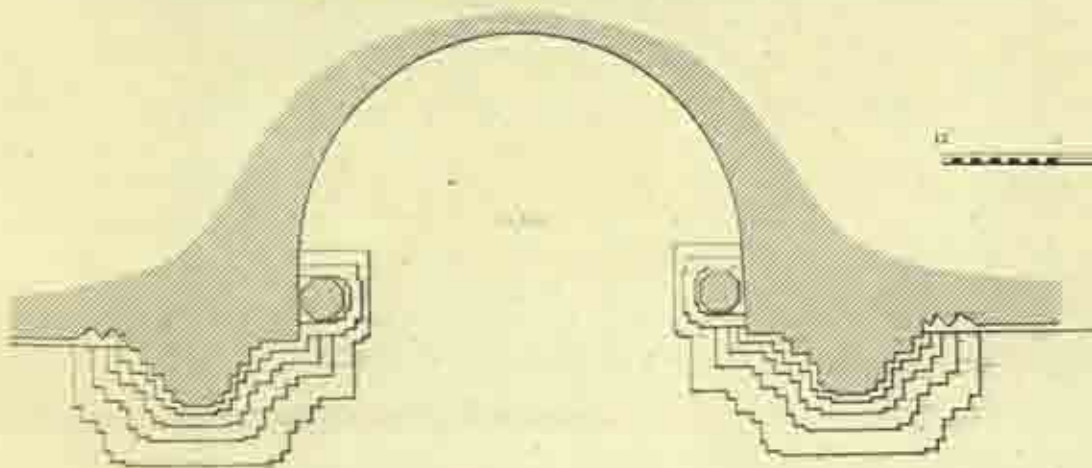
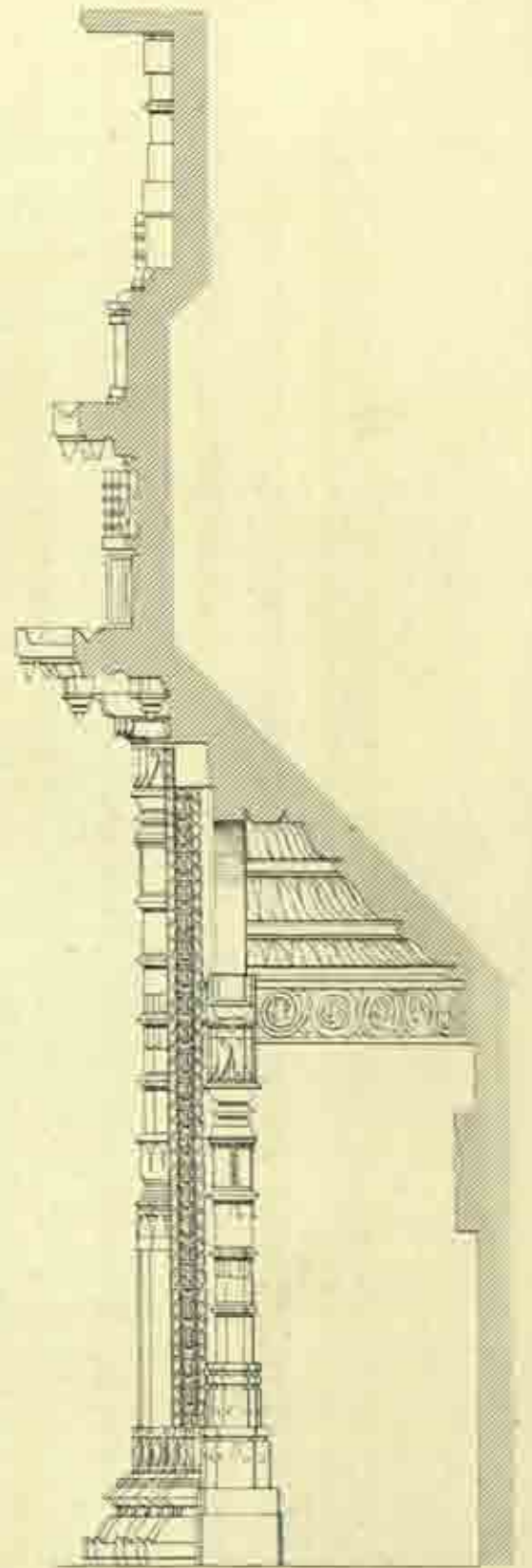
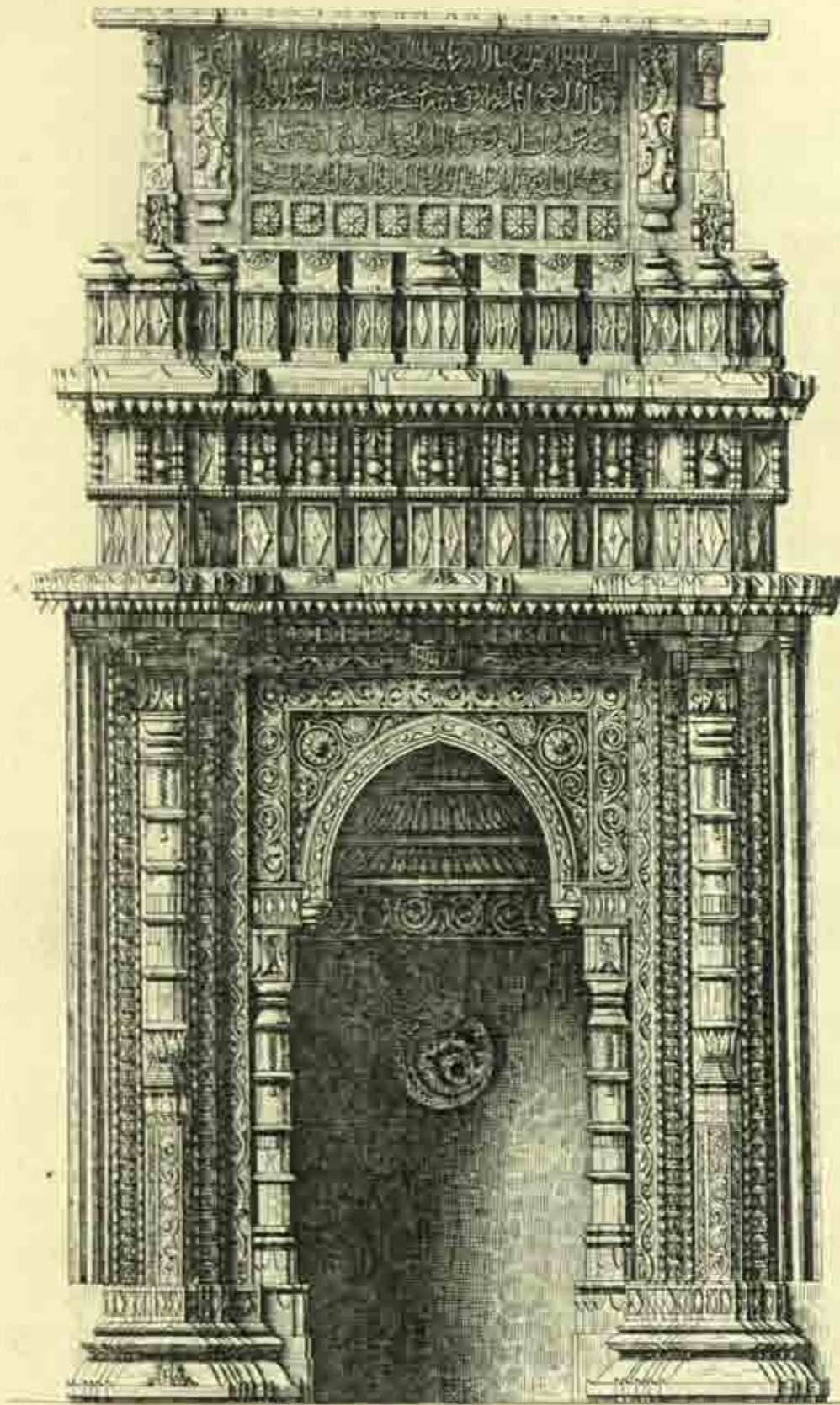
SIDE ELEVATION.

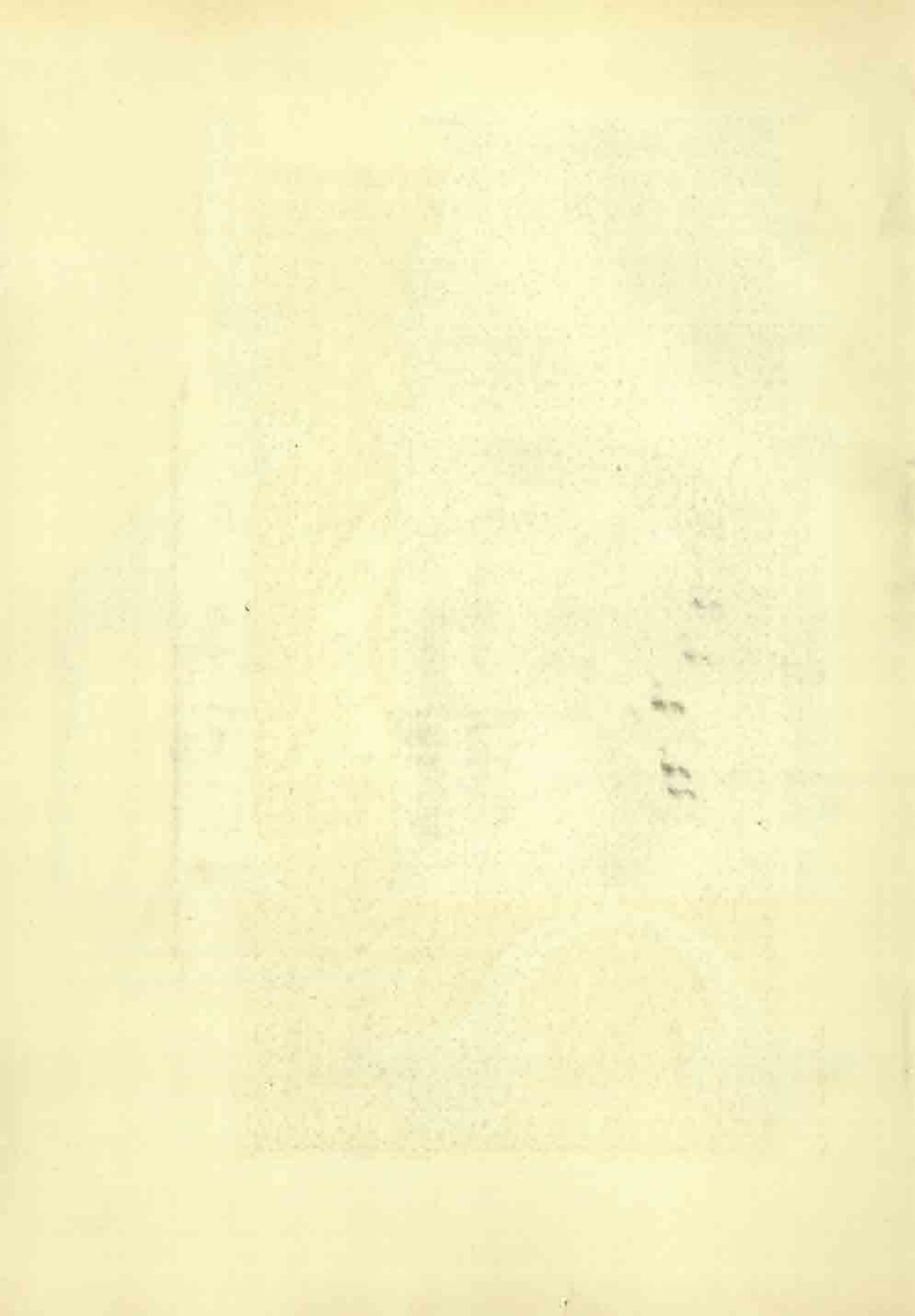


CASHAY TOMB OF UMAY IBN AHMAD AL KANABUHI A.D. 1300



BEARER CENTRAL MITRAB IN THE JAMI MOSQUE





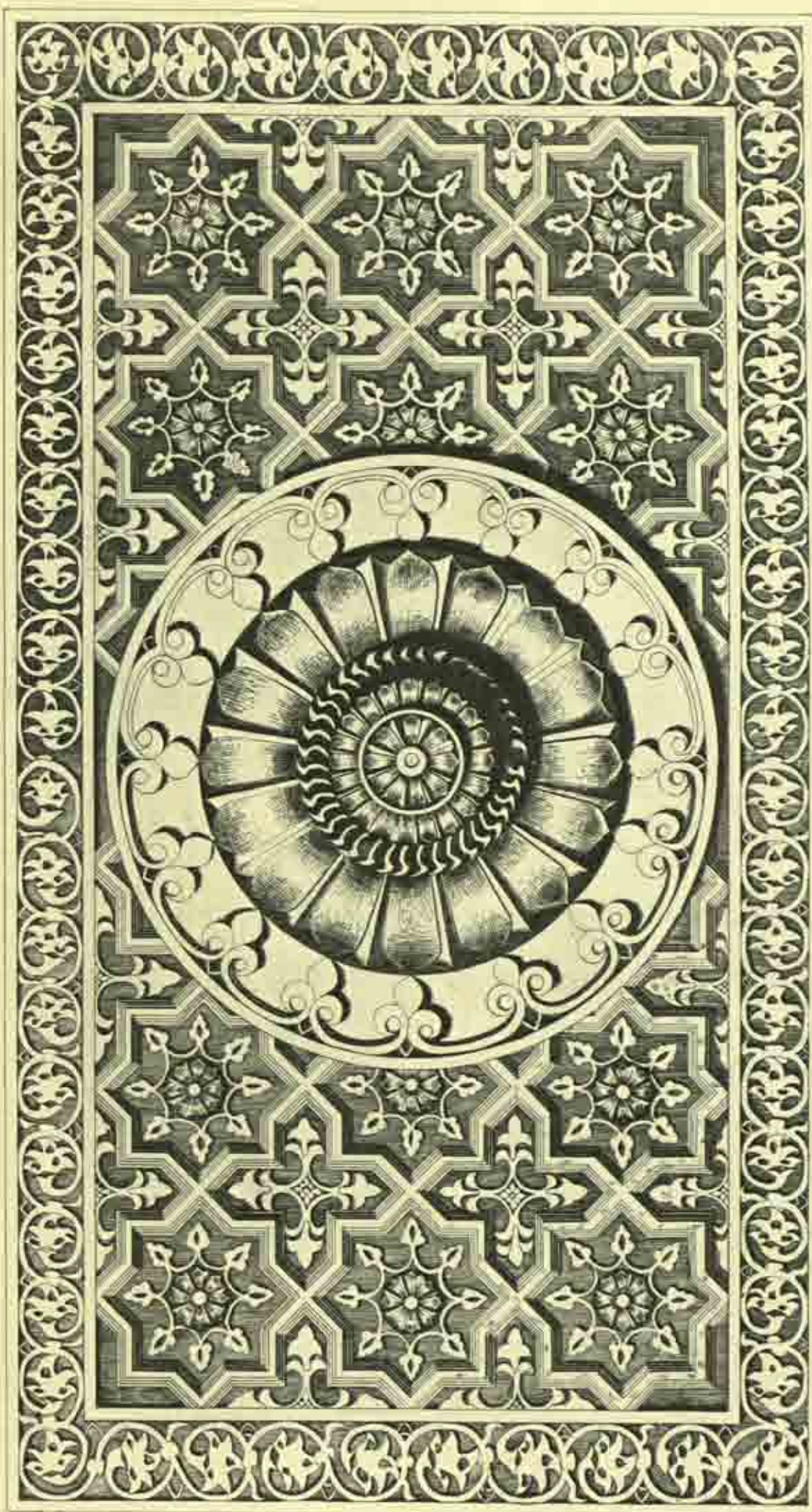


FIGURE 1

FIGURE 1

FIGURE 1

FIGURE 1

FIGURE 1

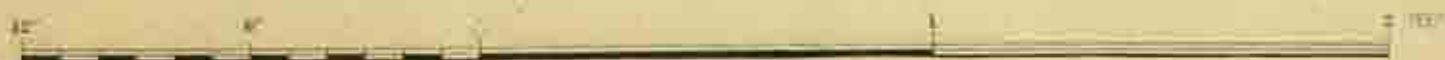


PANEL IN FRONT WALL



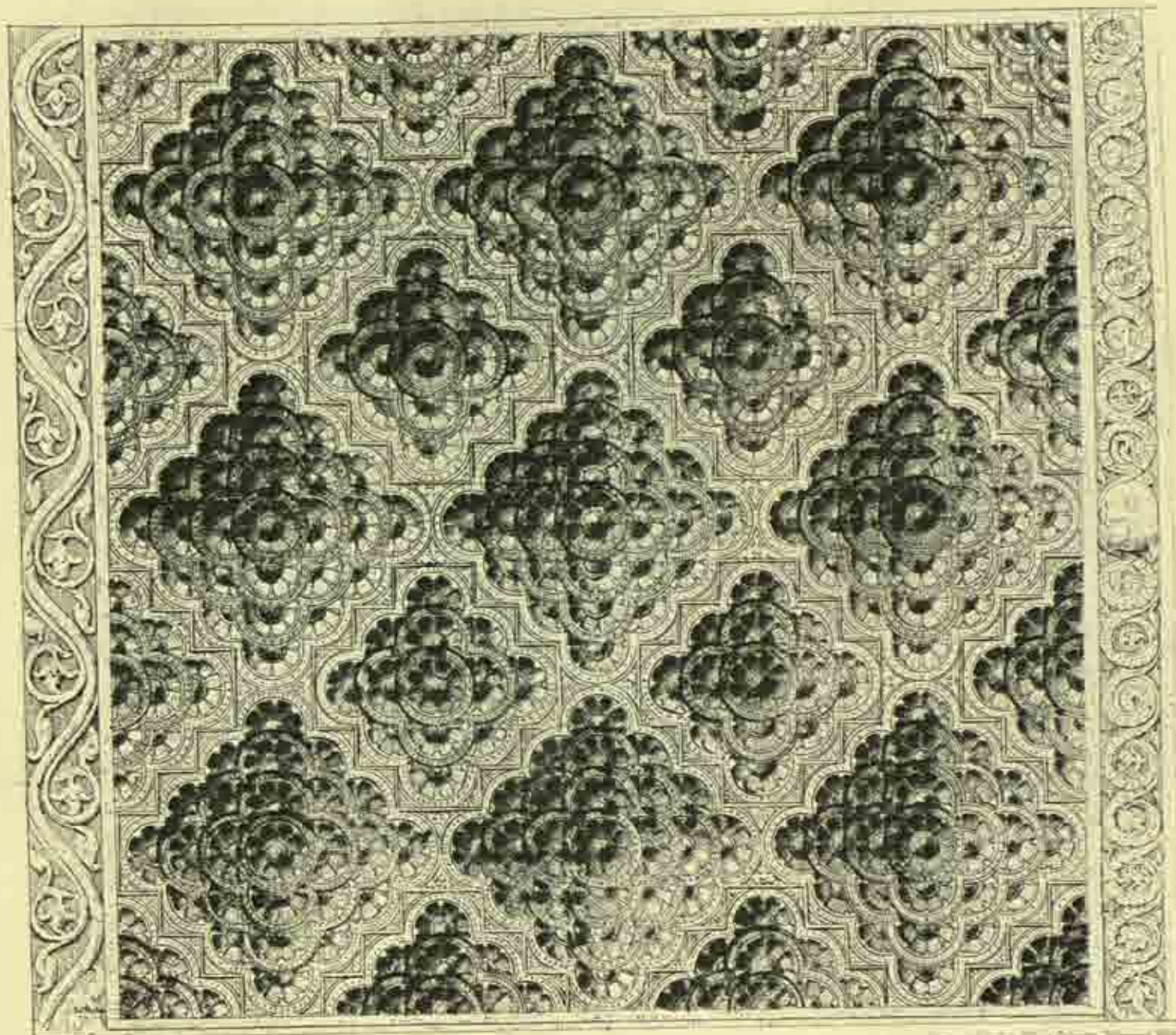


RELIEF IN FRONT WALL



DR. F. SCHUBERT'S DESIGN OF MOSAIC TILES

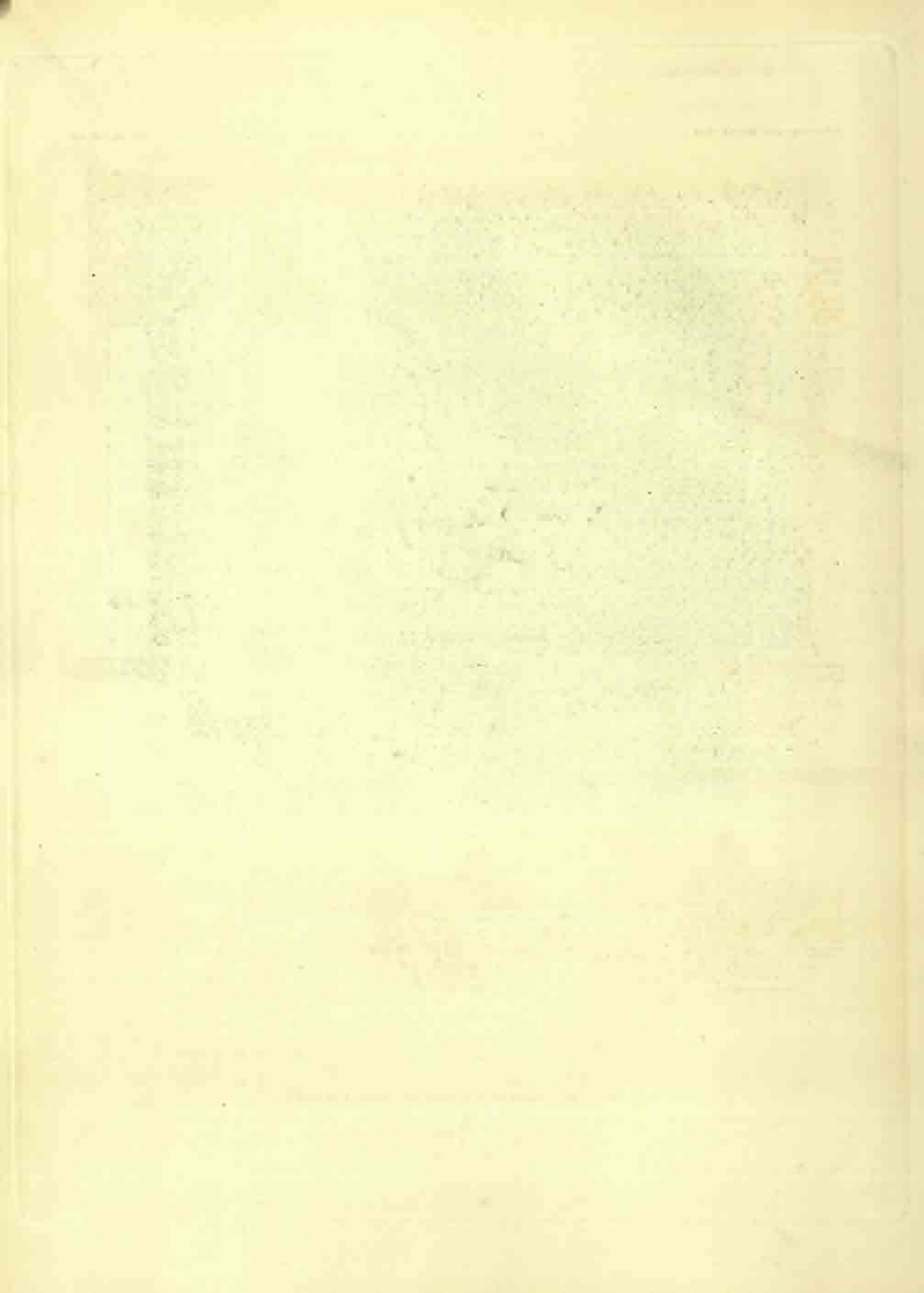
ΣΗΟΙΕΛΑ ΠΑΛΑΙ ΚΠΛΗ ΝΑΙΕ ΜΗΕΟΥ

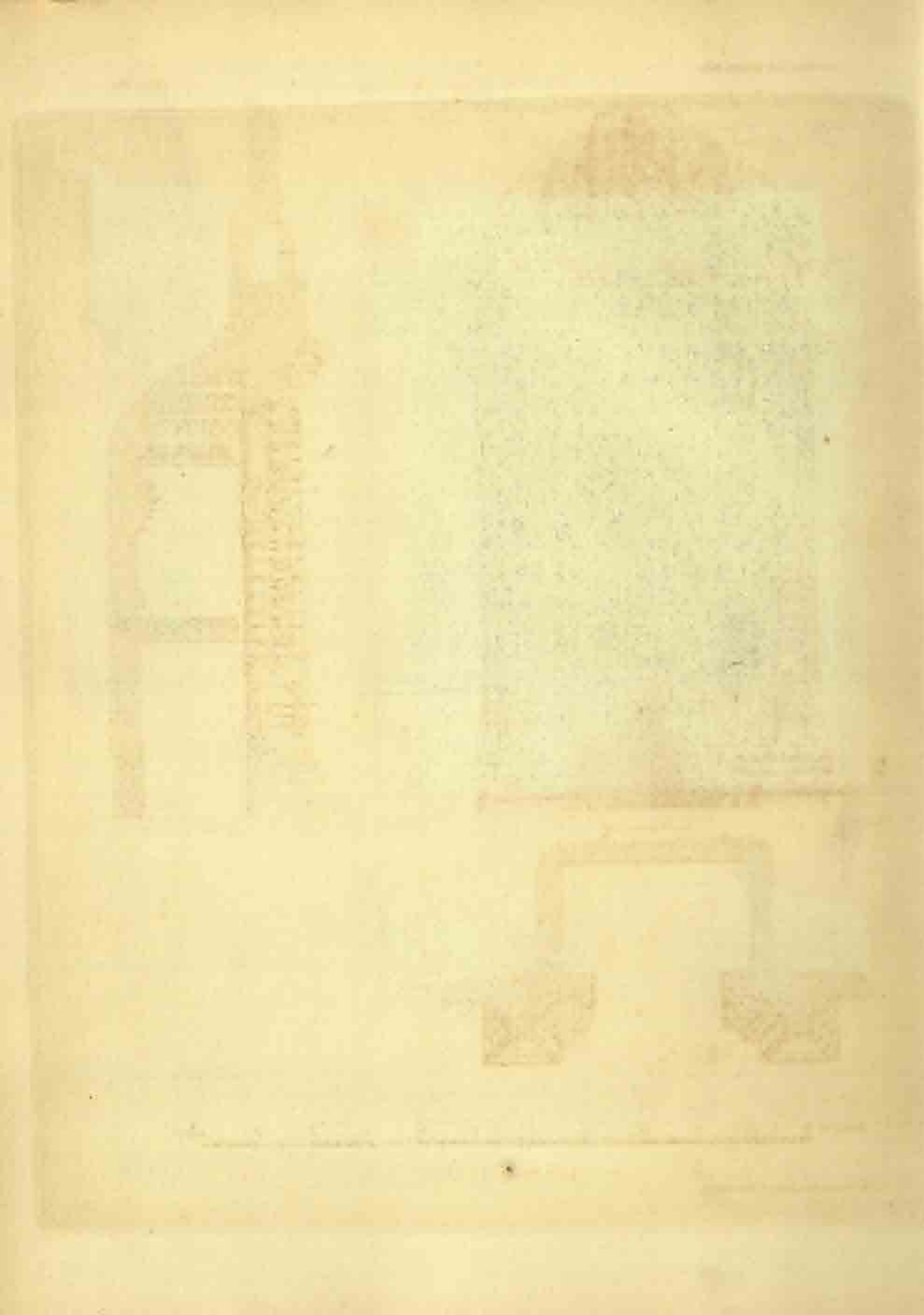


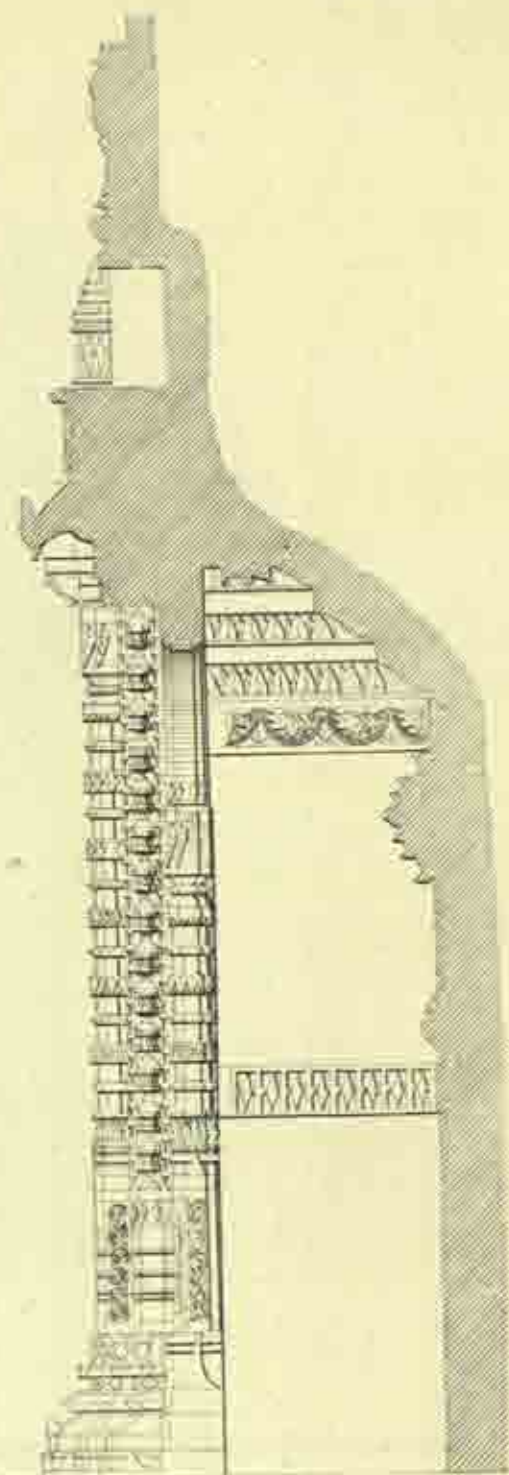
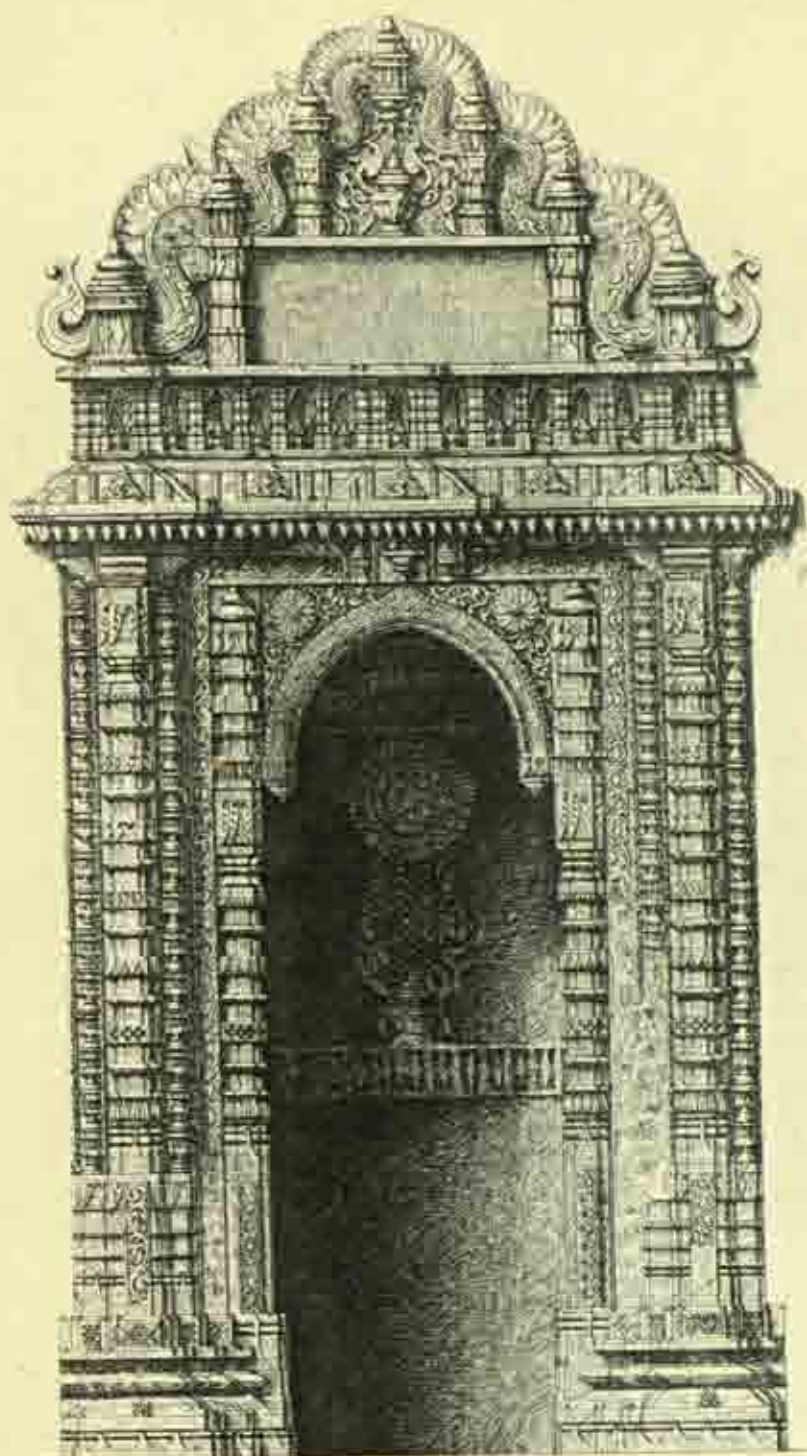
Design of Tiles, Athens, Greece, 1888



CEILING PANEL

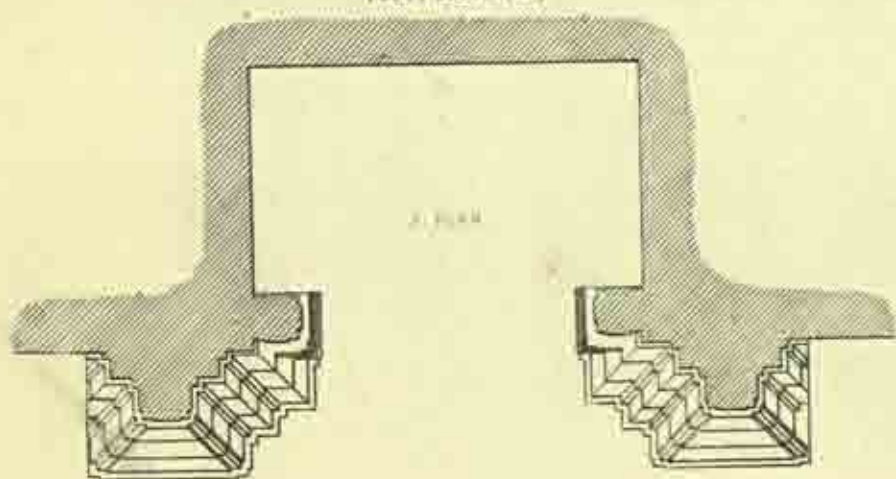






FRONT ELEVATION,

SIDE ELEVATION



PLAN

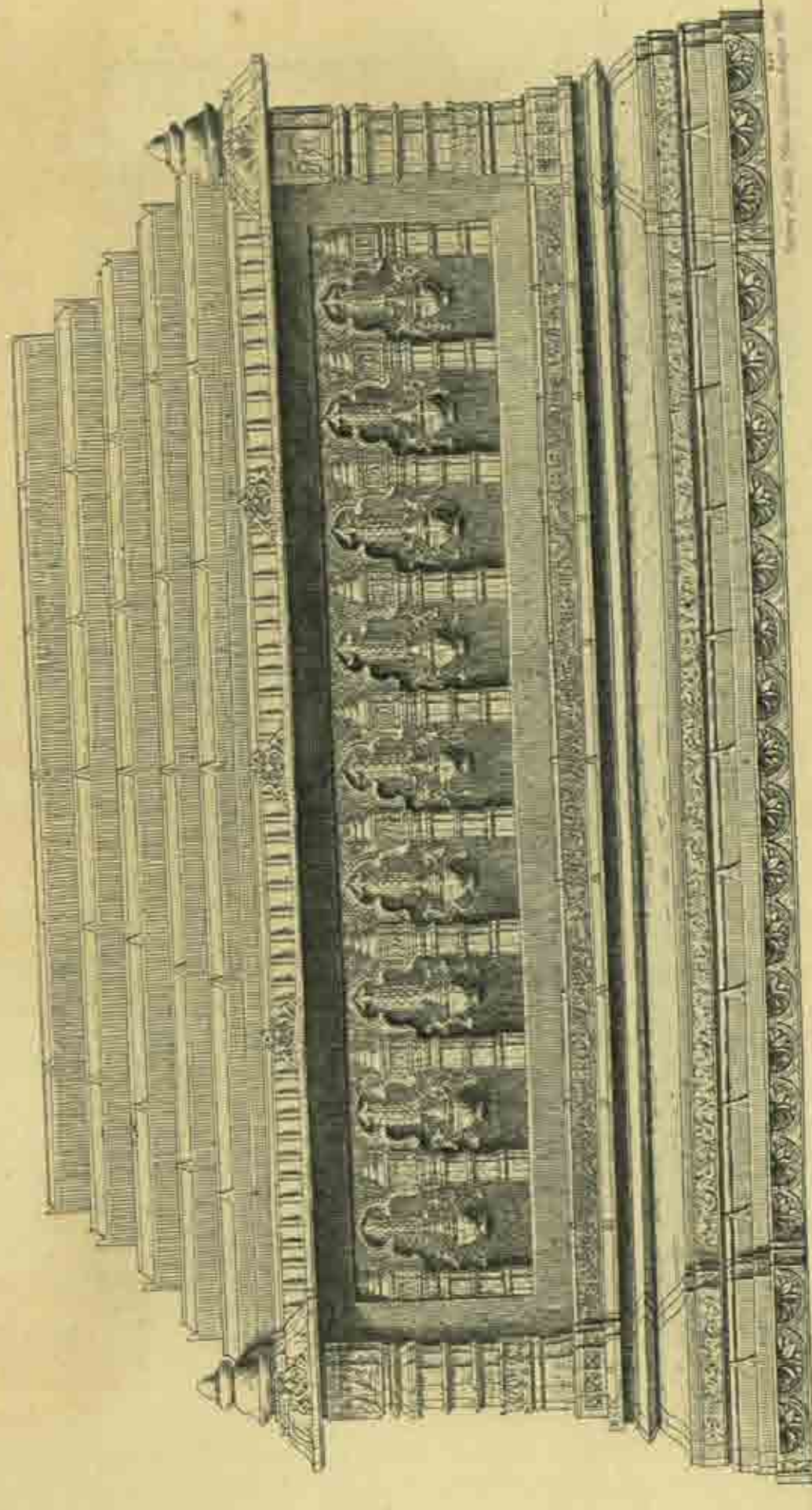
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JAMES H. HARRIS, ARCHT. & ENGINEER, NEW YORK

DRUKKA JAMT MAJED

AHMADABAD



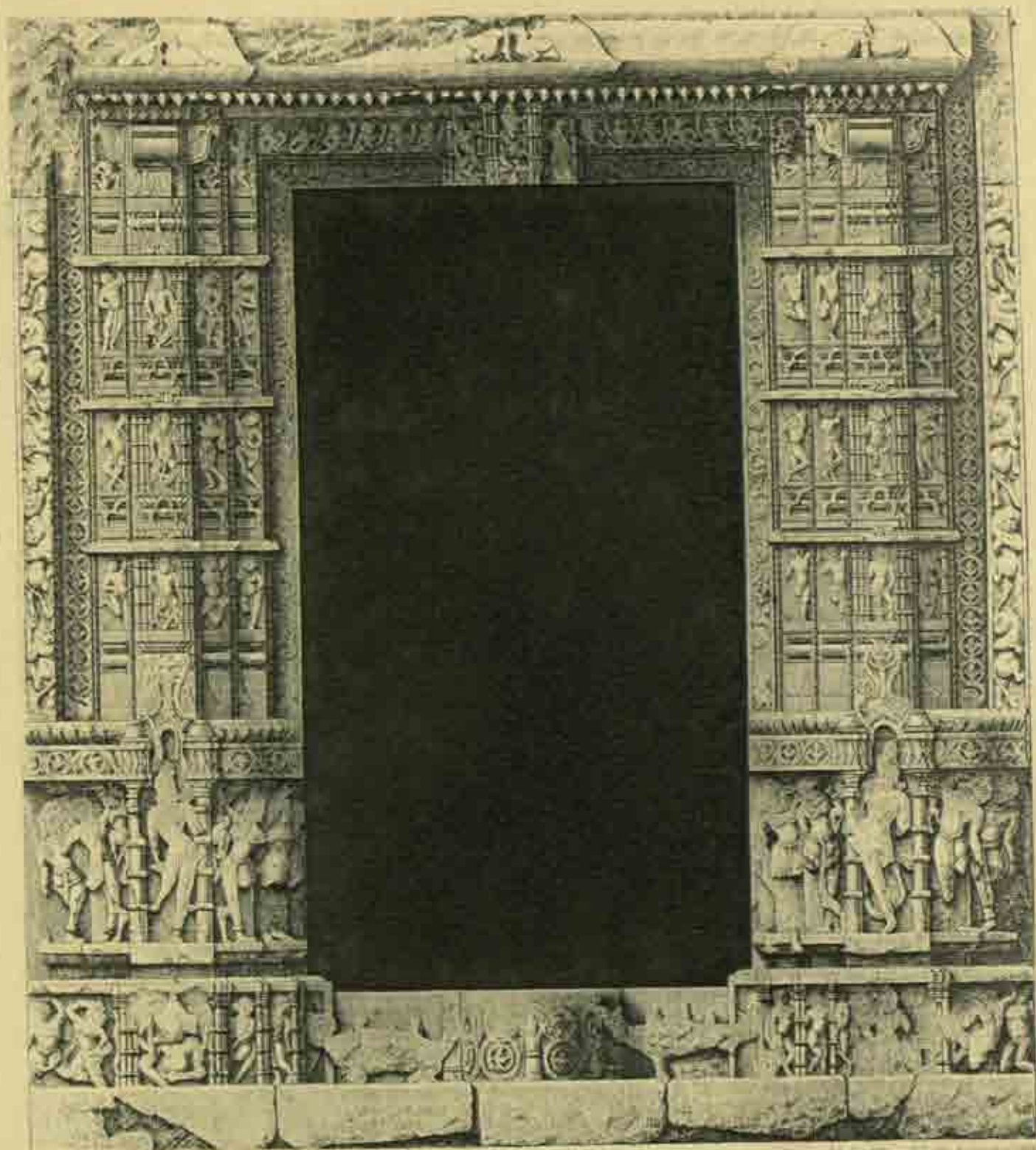
ONE OF THE MARBLE TOMBS OF THE QUEENS OF AHMAD SHAH

J. D. B. 1885

Engraved by J. D. B. 1885

Table with approximately 10 columns and 20 rows of faint, illegible text.

BUCKLA TAPKA MATH



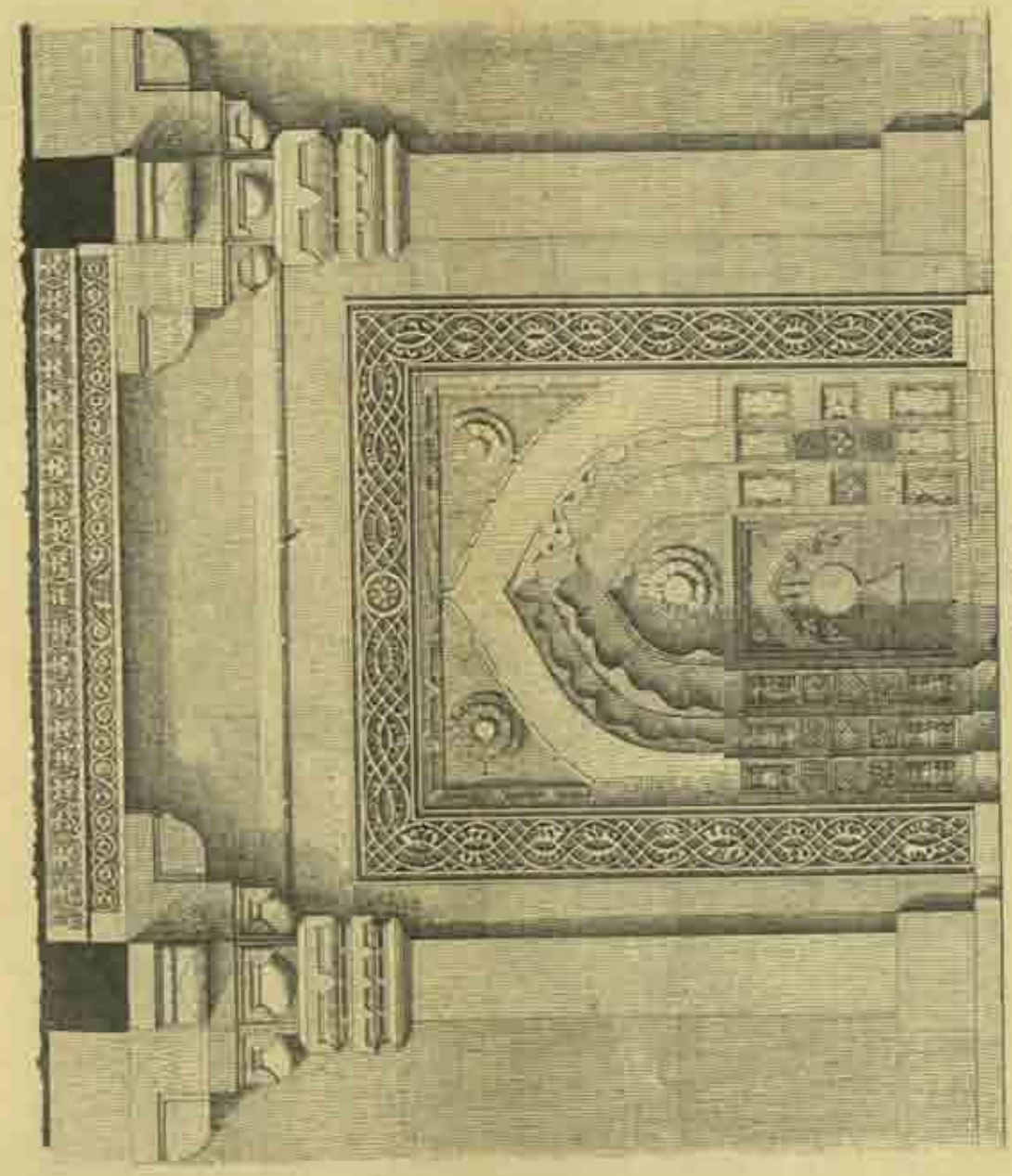
HINDU DOORWAY ON NORTH SIDE OF THE COURTYARD.

Photograph by

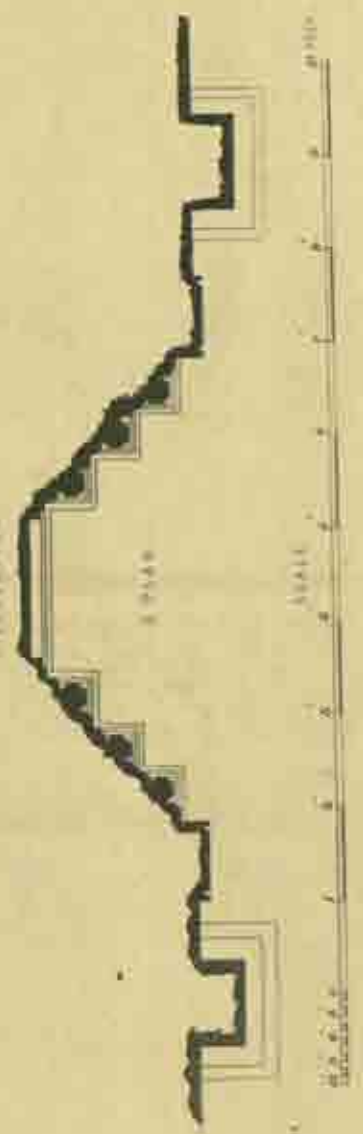
W. D. Hoagland

DR. RAJAKUMAR SINGH OF WESTERN INDIA.

JAMUNA JAMUNA



PRABHAWALI



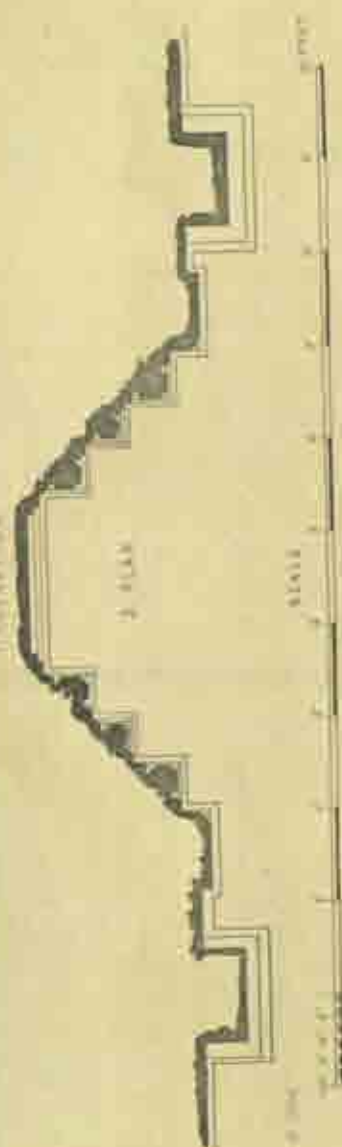
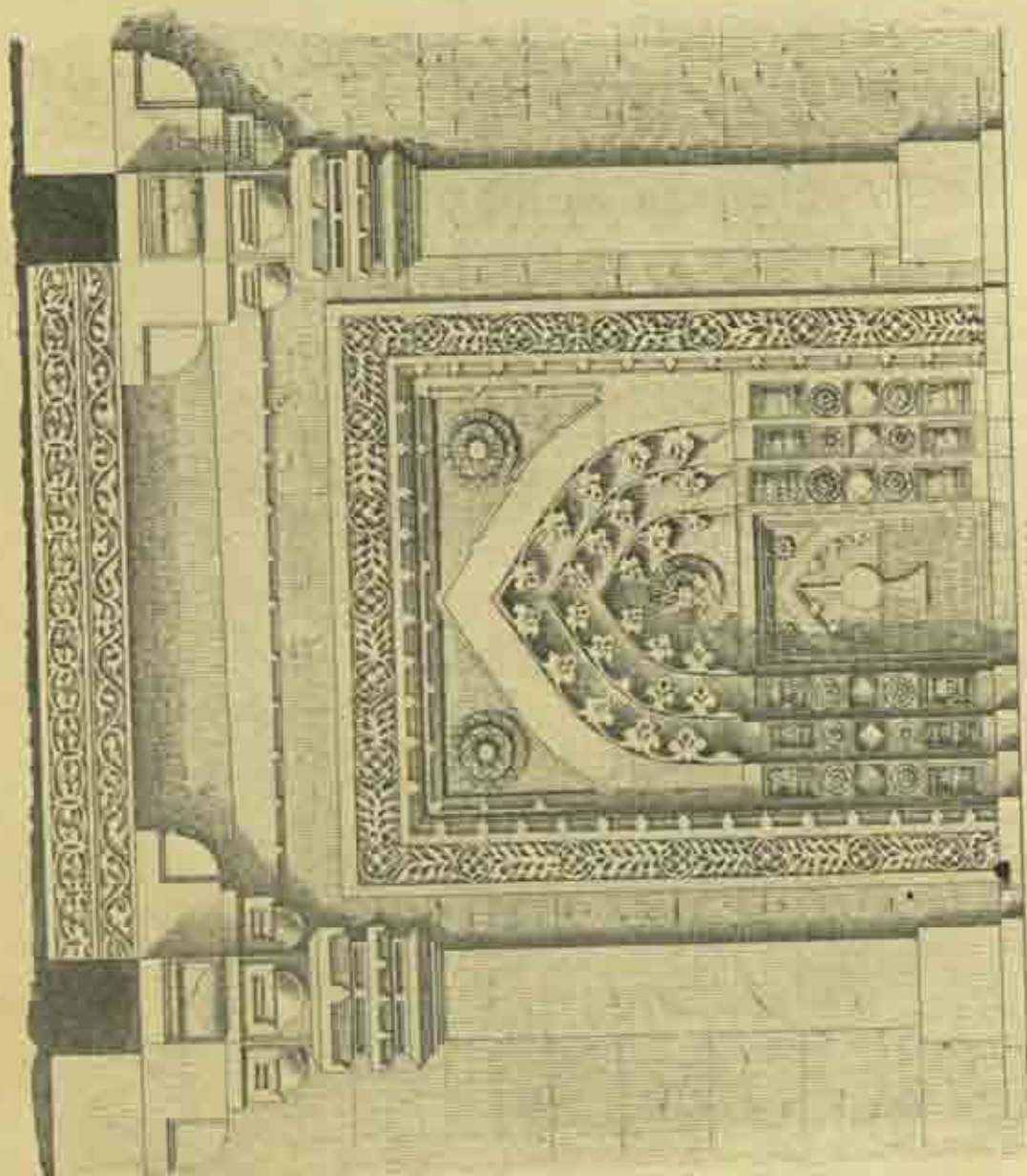
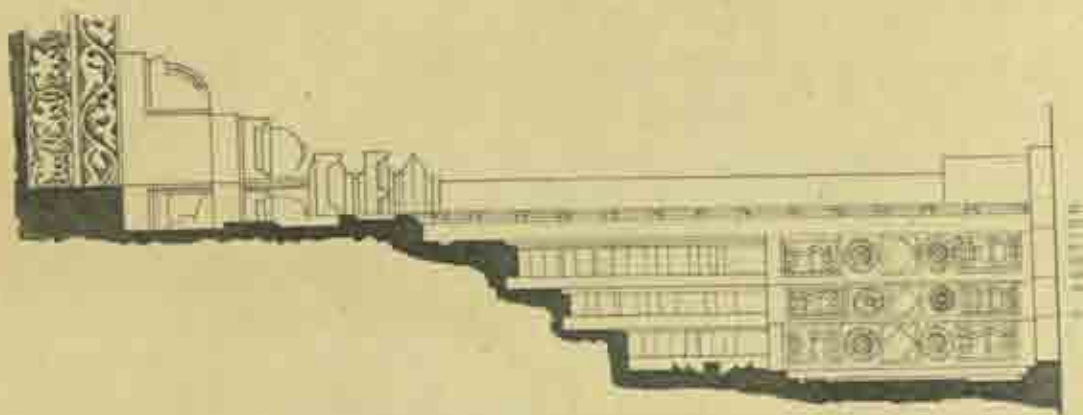
PRABHAWALI



PRABHAWALI

PRABHAWALI

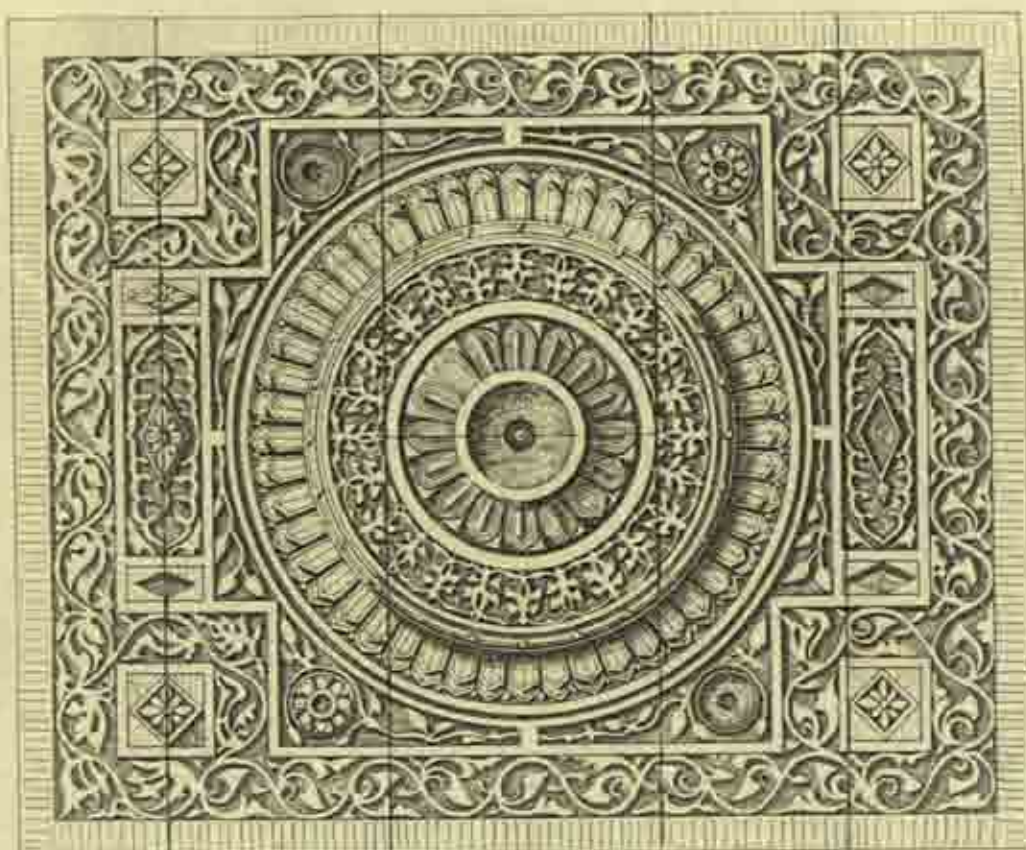
JAGGER JAMT MAJID



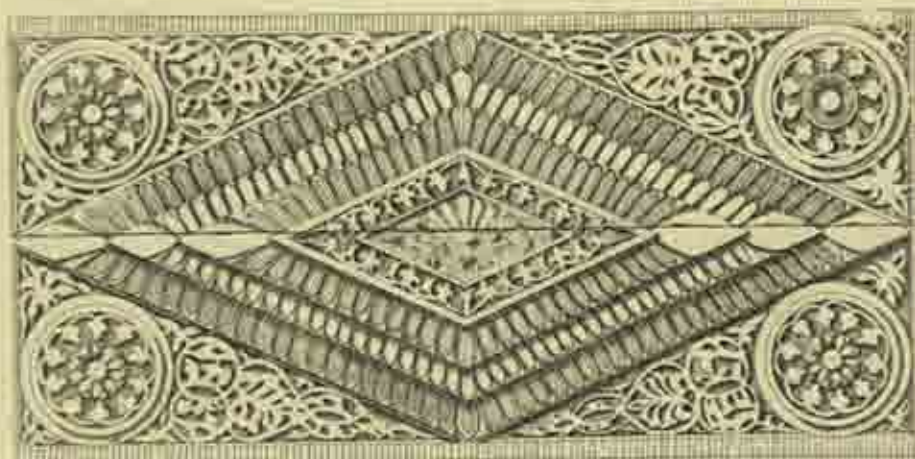
MINOR IN SOUTH-INDIAN ARCHITECTURE

Journal of the Indian Museum, Calcutta, November 1889

37168



1. PANEL A IN THE ROOF OF THE JANANA GALLERY.



2. PANEL B IN THE ROOF OF THE JANANA GALLERY.



Survey of India Office, Calcutta, December 1887.

TECHNICAL ART SERIES
OF
ILLUSTRATIONS OF INDIAN ARCHITECTURAL
DECORATIVE WORK.

PLATES I to XII, 1890.

PLATE I AND II.
CEILINGS IN RAISED STUCCO FROM A RUINED
PALACE AT BIJAPUR.

WITHIN the old citadel of Bijapur, to the east of the Sāt Manzil, or seven-storeyed palace, is a ruined structure, vulgarly known as "the Mint," but which was doubtless a Mahāl or residence. In the upper storey of this ruin we find some of the best designs in plaster that now remain at Bijapur. Many of the old buildings contained a very great deal of this beautiful surface tracery, but from various causes, and especially where exposed, very little of it now remains, and that little in a very mutilated state. The examples in these plates, however, have escaped almost intact, though some of the ceiling panels have been destroyed. As produced in these plates, in black and white line-work, they hardly give an adequate idea of the effect produced by the soft lights and shadows on the creamy plaster.

In working out these patterns, the workmen seem to have laid on the plaster in flat masses, and while wet carved out the patterns to depths varying from three-eighths to three-quarters of an inch. The radiating ribs in Plate I are deeper than the flat work at the centre and edges. The central pendants of both ceilings have been destroyed.

PLATE III.
CORNICE AND BRACKET FROM MALIKAJAHAN
BEGUM'S MOSQUE AT BIJAPUR.

A NOTABLE feature in the Bijapur buildings is the projecting eaves with their beautifully carved supporting brackets. These are common also, though different in detail, in the Hindu temples of the surrounding country. In the Bijapur architecture the projecting eaves are formed of large, thin, flat slabs which are supported at intervals by brackets connected together below by transverse tie pieces. Longer or double brackets are introduced at intervals above the piers that divide the façades below. In this plate a section of the cornice between two brackets is given, and the long bracket shewn, built out, as it were, beyond the shorter one. The soffits of the two shorter brackets on the plan correspond to the two hanging buds or knobs in the upper portion of the larger one. All the ornamental surface work is carved in low relief; and this particular cornice has a beautifully scalloped fringe along its outer edge or drip. From the bottom of the long brackets a rib is continued down the face of the wall, the front of which is shewn in the small detached figure.

The building is ascribed to Ibrahim II (A.D. 1579-1626), and is said to have been built in honor of his wife, Jahan Begum, in 1587.

PLATE IV.
CEILING IN STUCCO FROM THE CHHOTA'ASAR
MOSQUE AT BIJAPUR.

THIS plate represents half the ceiling of a small mosque which contains some very good plaster-work both on the walls and ceilings. The roof is waggon-vaulted, the central rectangular space being flat, while the broad border round it slopes downwards to the walls. The plaster-work seems also to have been further embellished with colour of which traces remain; and the sunk surfaces within the design were black, thus throwing out the pattern in violent contrast; but the taste of this is questionable.

There is a little variety here in the broad border from the usual purely geometric outlines that usually prevail. The long leaves are thrown in between the flowers with good effect.

PLATE V.
IRON MOUNTINGS FROM SHAH KARIM'S TOMB AND
MIHTAR-I MAHÂLL.

ON this plate are given four examples of iron clamping and bosses, one of which, on the upper right hand side, is from the door of the Mihtar-i Mahâll, shewn on Plate VI. This is made of separate pieces and rings held together by the studs or heads of nails driven right through the door. The other three specimens are from the doors of Shah Karim, beside the Jami' Masjid, each consisting of two perforated pieces, and fastened to the door by five studs. The design of each is different, while the shape is the same.

PLATE VI
HALF INNER DOORWAY AND OUTER DOOR,
MIHTAR-I MAHALL.

THE wooden door closes the main entrance from the road; and the doorway with the rope-moulding round it is at the opposite side of the hall, and opens into the court-yard of the mosque. The whole structure of the Mihtar-i Mahall is little else but an elaborate gateway, with rooms above, giving access to the small mosque beyond.

The outer door, in two ponderous leaves of wood, is decorated with carved rails, which with the panels, are embellished with wrought-iron bosses and clamps. The inner doorway is deserving of notice for the rope moulding, which is not elsewhere found in the architecture of Bijapur.

PLATE VII.

DETAILS OF ORNAMENT FROM VARIOUS BUILDINGS AT BIJAPUR.

THE two plaster medallions given on this plate are from a small tomb close to Pīr Shaikh Hamid Qadir's. They are used as decoration on the surface of the building and worked in high relief.

The perforated circular window is from the same building, being placed above the arched entrance on the east front. Circular windows are very rare in Indian work.

The two corner panels are from a tomb in a field north-east from the last. They are worked in plaster, just under the springing of the dome in the interior.

The moulding on the front of an arch and the fret are from the tomb of Kishwar Khan near the Naubāgh, and, like others, are in plaster-work. The section explains the relief of the different members.

PLATE VIII.

BRACKETS FROM THE NAVA-GUMBAZ AND KUMBHĀR MASJID AT BIJAPUR.

THE long bracket on this plate from the Nava-gumbāz, or Nine-domed Mosque, is peculiar in its design: the setting back of the right-angled moulding gives it an air of strength and rigidity. In the other, from the Kumbhār Masjid—so called now from a potter occupying it for his work—is more elaborate, but the corbel on which it rests looks weak for the weight above it.

PLATE IX.
STONE CEILING PANELS FROM THE IBRAHIM
RAUZA, BIJAPUR.

AN inspection of the tomb of Ibrahim II, at Bijapur, will convince any one of the care in execution and excellent finish of the mason-work. The panels in the plate represent a portion of the flat stone ceiling of the corridor round the tomb. The plain strip is the lower face of the supporting beam, extending from pillar to pillar, while beyond it the ceiling projects, and is decorated with a single row of carved panels sunk about half an inch below the level of the borders. Every panel is a separate study in decoration.

PLATE X.

DOOR FROM THE IBRAHIM RAUZA AT BIJAPUR.

THIS door differs from that on Plate VI, though in type they are the same. In this the folding doors are properly framed and panelled. Along the styles and rails ornamental knobs are carved in high relief, as close together as practicable, and with iron studs or large nail-heads projecting from most of them: these were originally gilt. The raised areas of the bevelled panels are carved with Arabic sentences, in which the letters are interwoven into ornamental forms.

The jambs and lintel are of polished black basalt, and the lower halves of the jambs are carved with geometric patterns in low relief, while running round the upper part of the frame is a stepped moulding, and within it is a sentence from the Qoran.

PLATE XI.
OLD PERSIAN CARPET DESIGNS.

THIS plate represents quarter patterns of the designs on two of the old Persian carpets preserved at the 'Asar Mahall. Though old and much worn, they retain their colours well. The one carpet measures 25 ft. 6 in. by 10 ft. 5 in., and the other 32 ft. 11 in. by 12 ft. 6 in. They have been badly used, and little care is taken of them by the Muhammadan custodians of the 'Asar Mahall. Government now proposes to supply the custodians with others to take their place, and to preserve these carefully.



PLATE XII.

PERFORATED STONE SCREEN-WORK FROM CHALUKYAN TEMPLES.

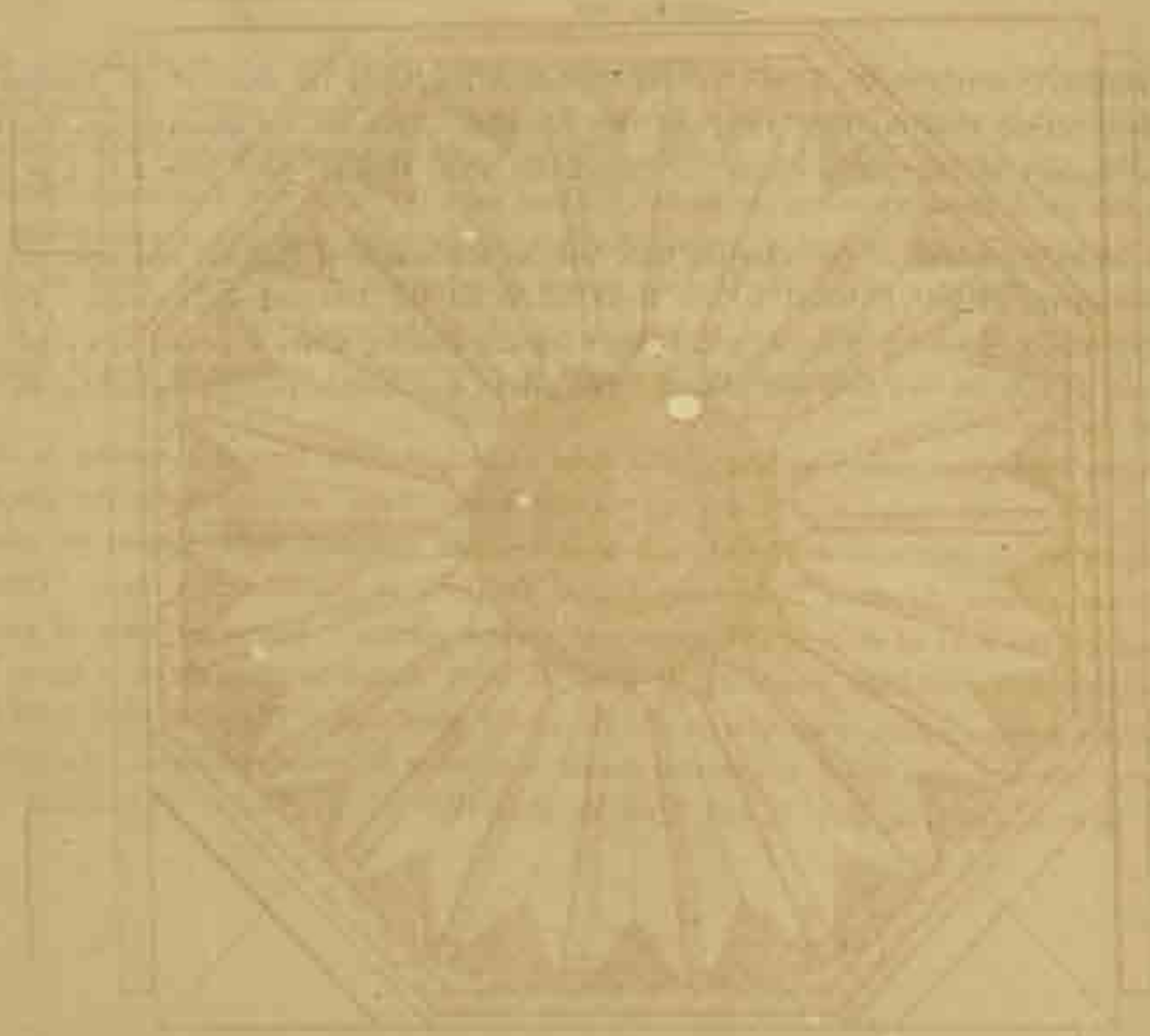
THE six examples on this plate are from various Chalukyan temples in the south of the Bombay Presidency, dating from the 11th, 12th, and 13th centuries. They are not drawn to any fixed scale, for the squares of the patterns vary in the temples where they are used from 2 to 4 or 5 inches.

The two across the middle of the plate are both from an old temple of Brahma, now used as a Lingayat shrine, at the village of Unakal in the Hubli taluka of the Dhārward Collectorate. The fifth example is from a temple at Naregal, also in the Dhārward District, where it occurs in a screen between the central hall and two long side shrines. The others are common patterns occurring frequently.



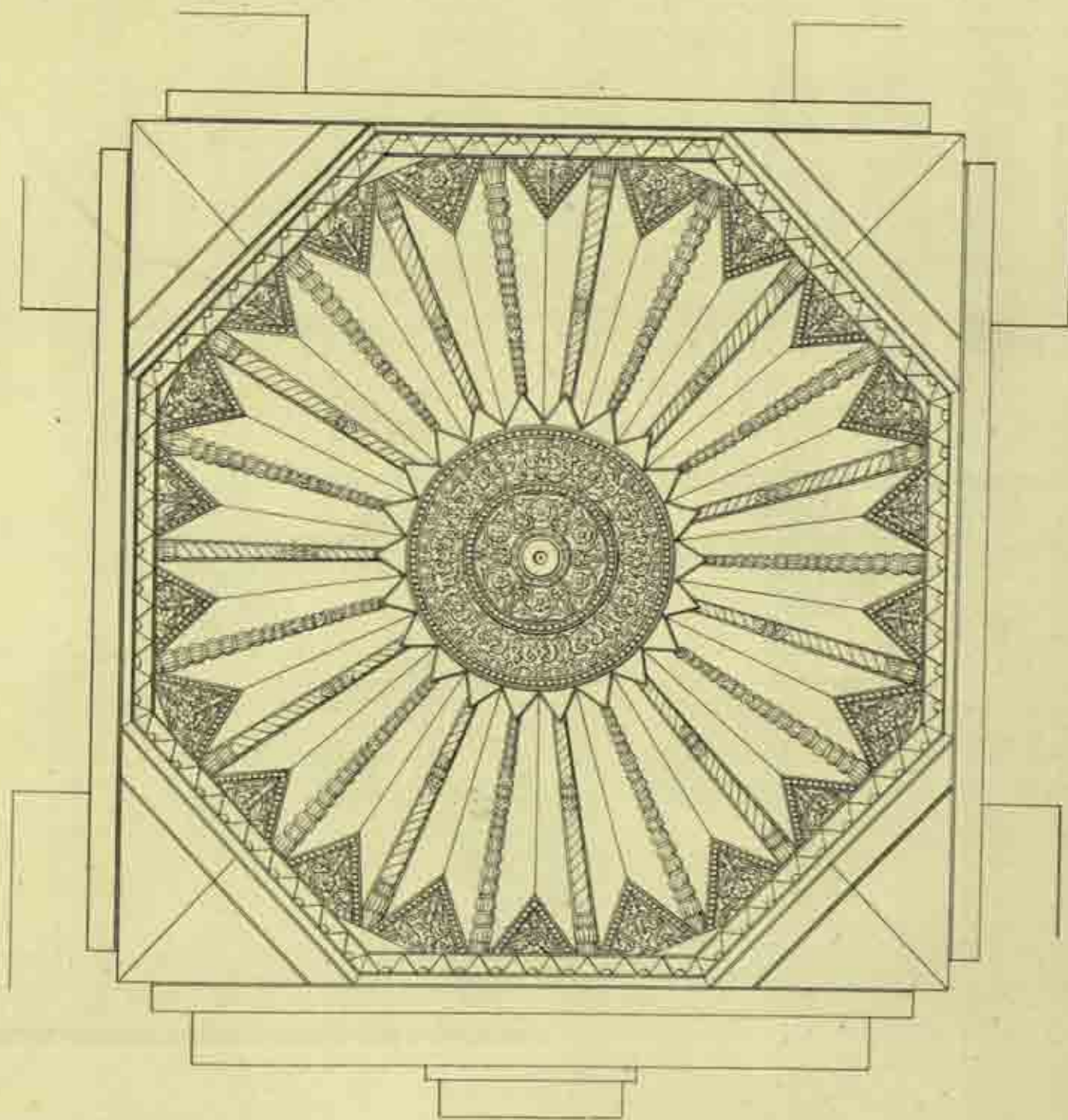
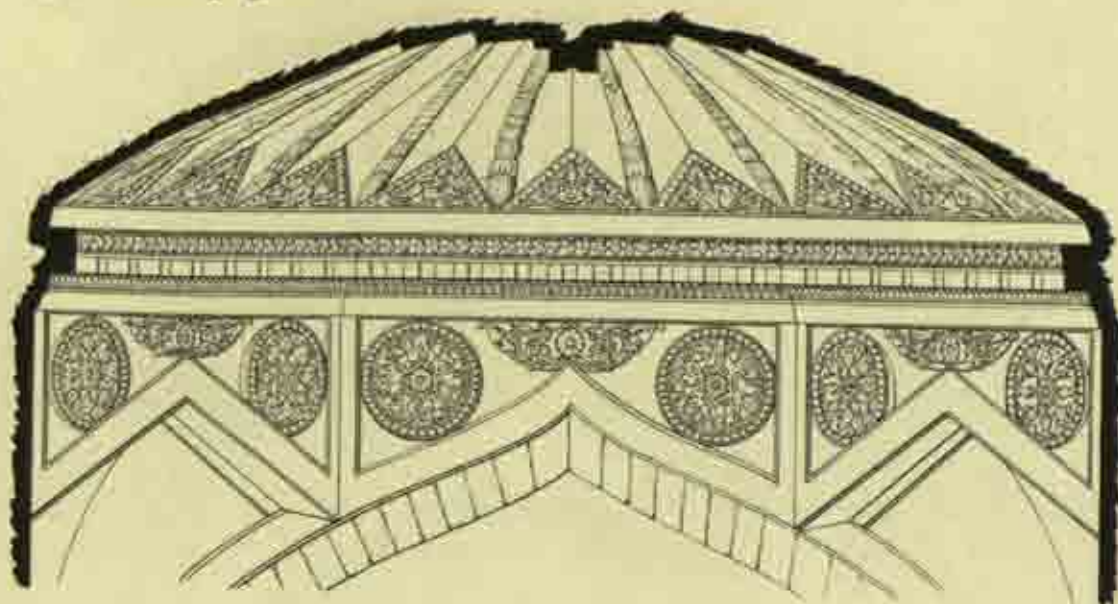
SECTION B
PLATE VII

PAVING STONE SCHEMATIC FROM
CHALUKYA TEMPLES



THIS IS A SCHEMATIC OF THE PAVING STONE
FROM THE CHALUKYA TEMPLES

Govt. Archaeol. Survey of Western India,
No. 783.

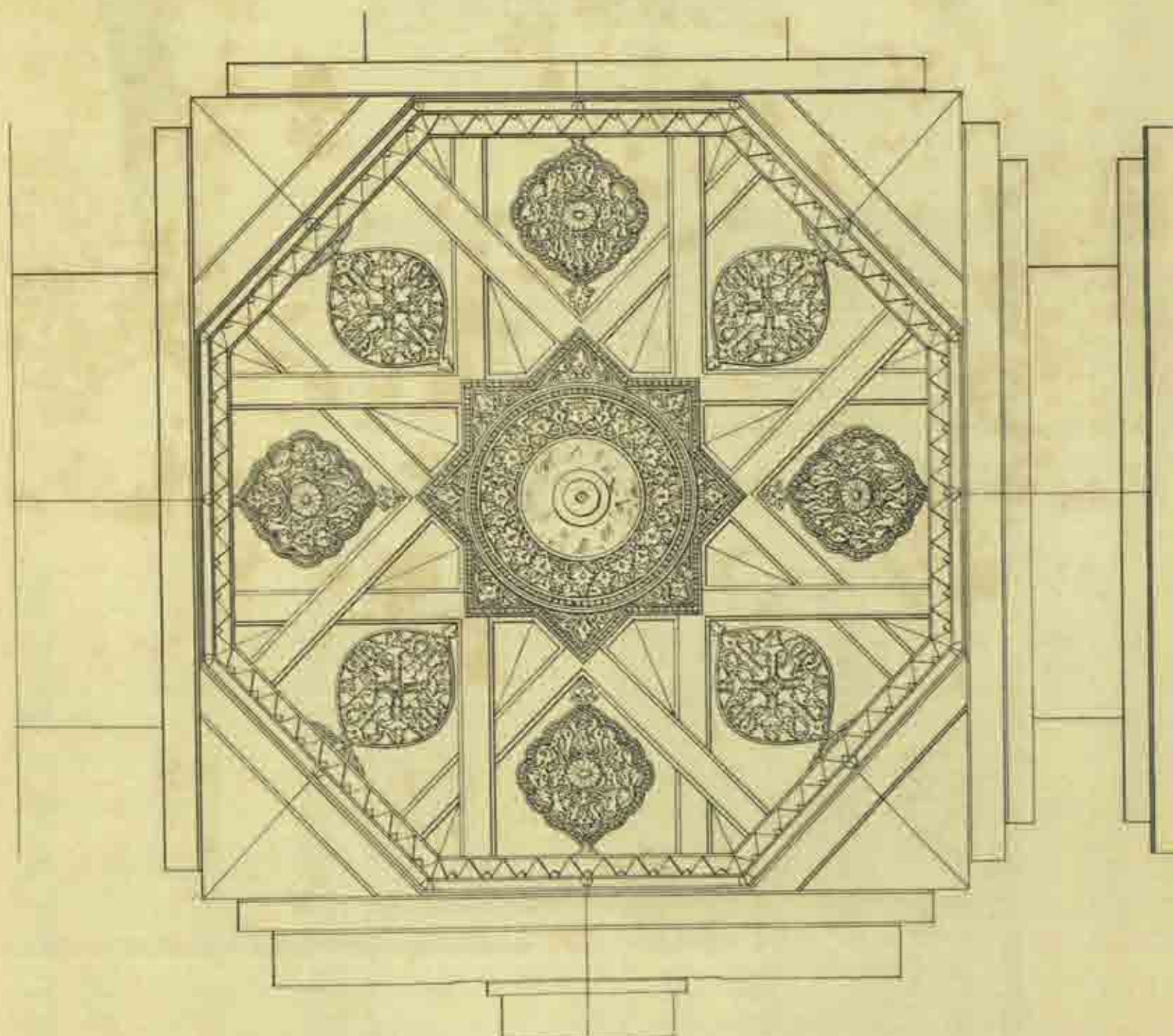
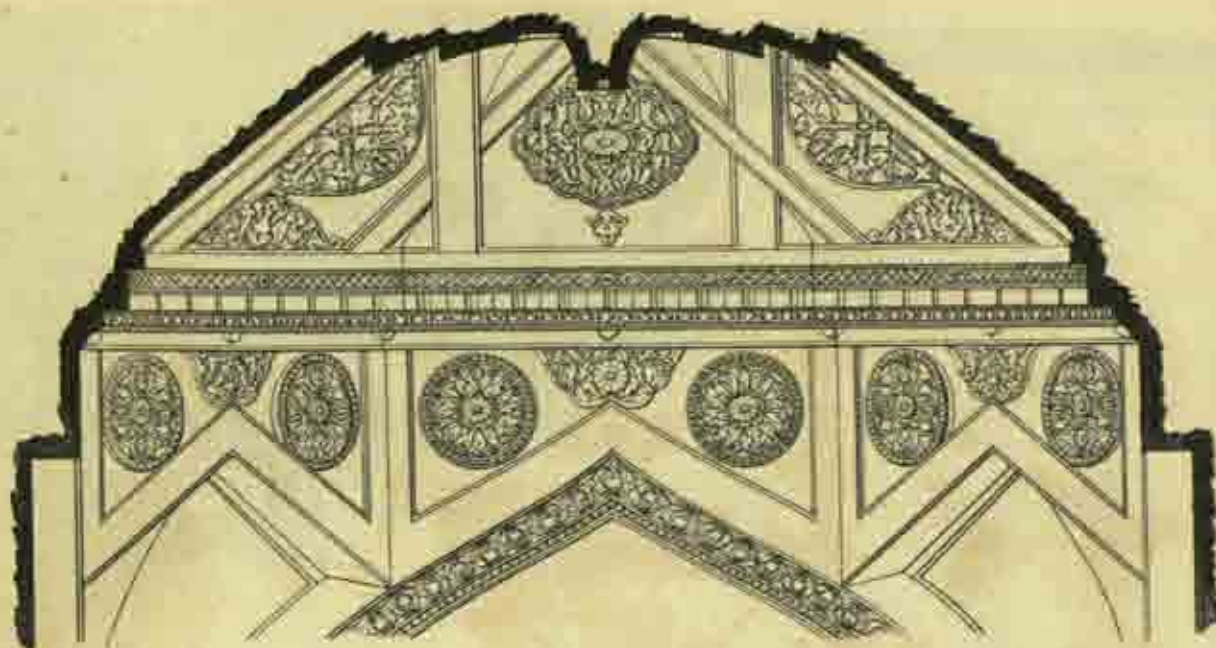


GEHLING IN RAISED STUCCO FROM A RUINED PALACE IN THE CITADEL, BIJAPUR.

SCALE OF 12" 1 2 3 4 5 FEET.

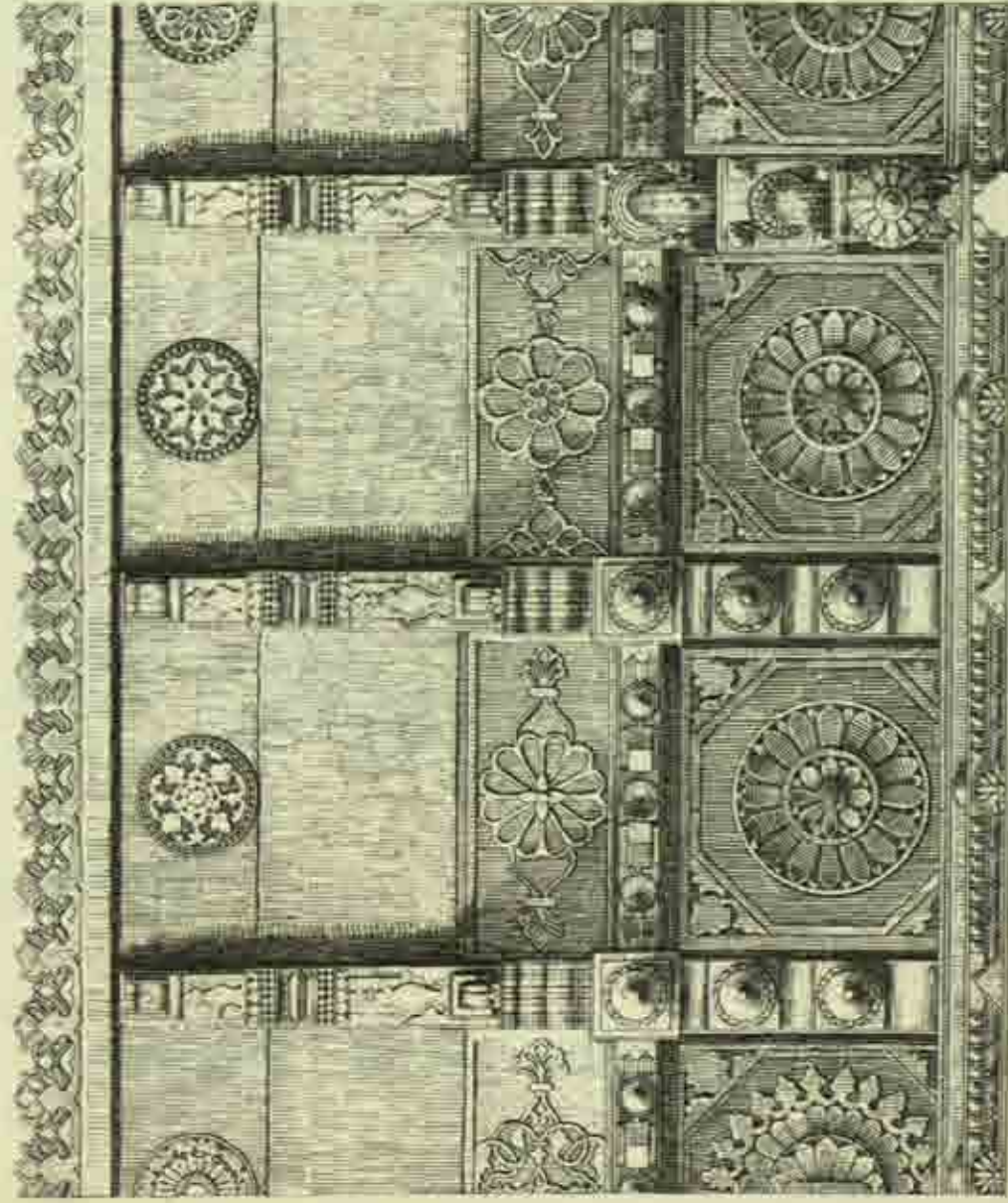
Govt. Archaeol. Survey of Western India.

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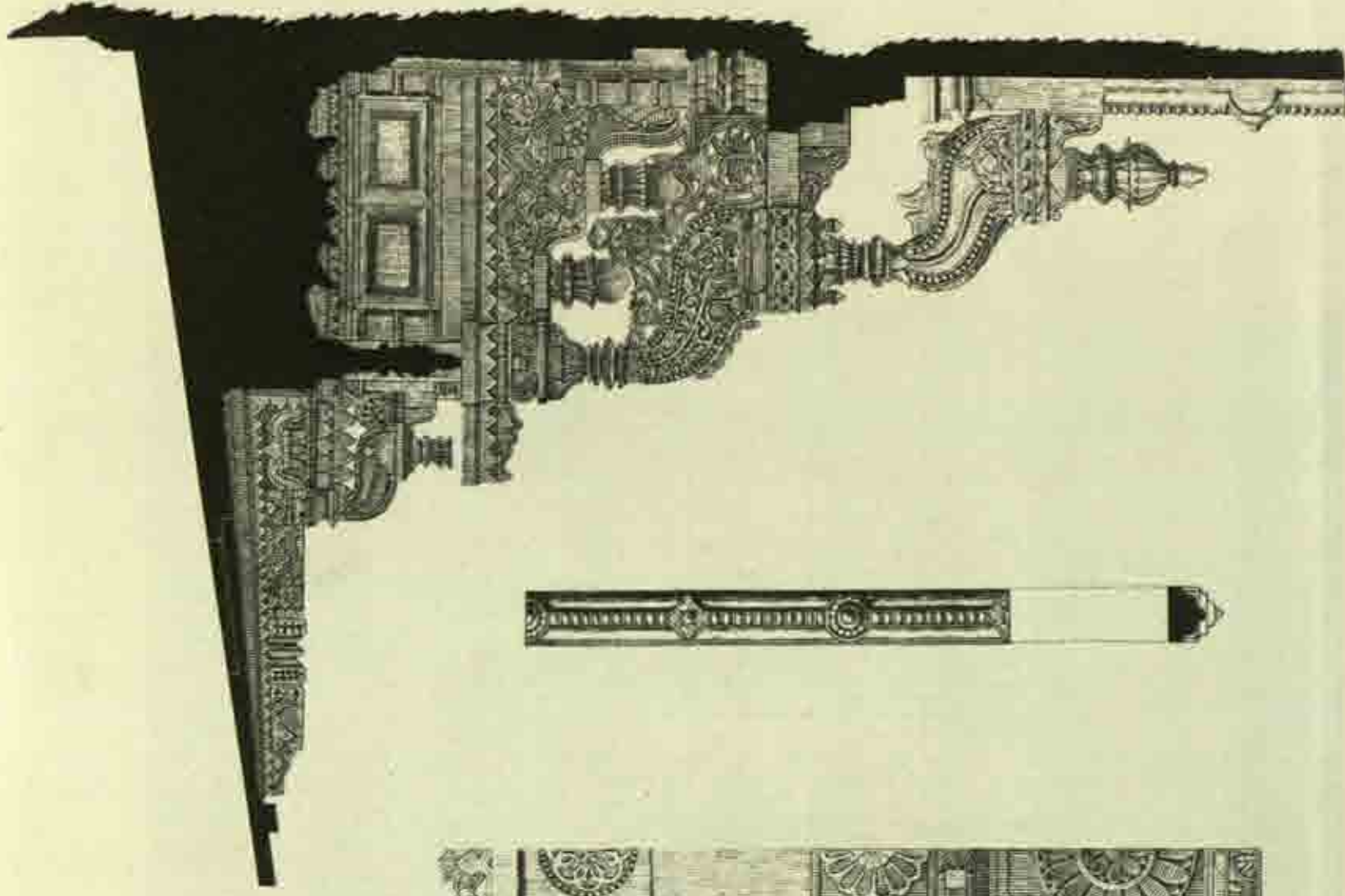
CEILING IN RAISED STUCCO FROM A RUINED PALACE IN THE CITADEL, BILAFUR.

SCALE OF 12 1 2 3 4 5 FEET.



Plan.

CORNICE FROM MALIKA JEHAN BEGUM'S MOSQUE, BIJAPUR.



Section shewing bracket.

Govt. Archaeol. Survey of Western India.

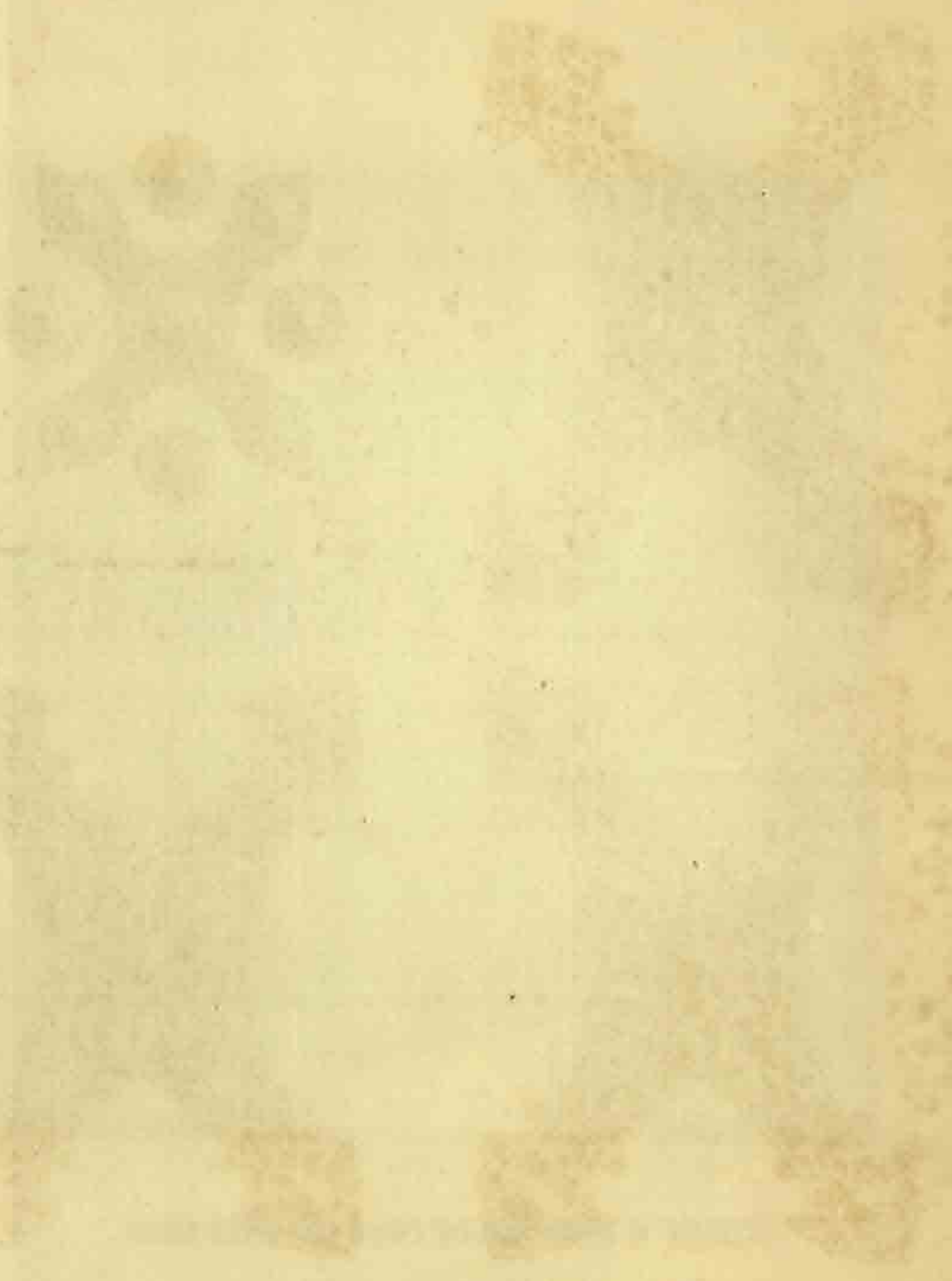
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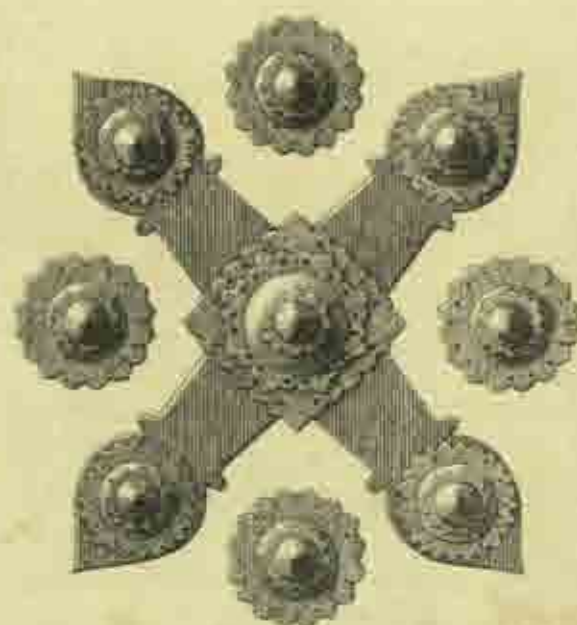
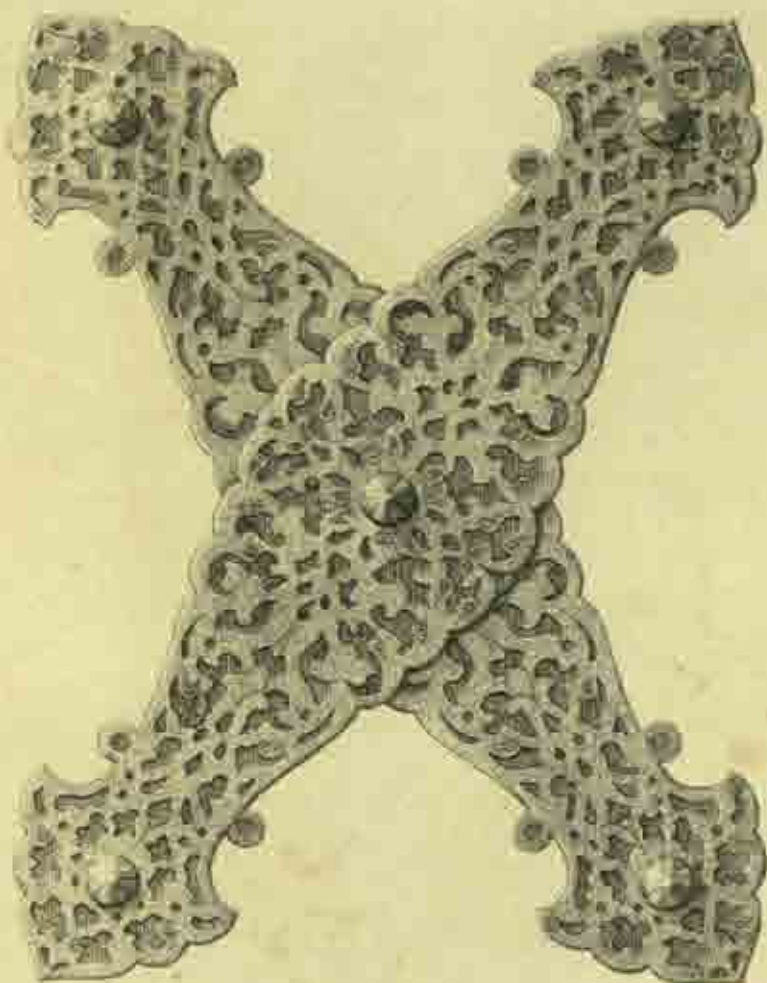
CEILING IN STUCCO FROM THE GHOTA ASAR MOSQUE, BIJAPUR.

SCALE OF FEET 1 2 3 4 5 6 7 8 9 10 FEET.

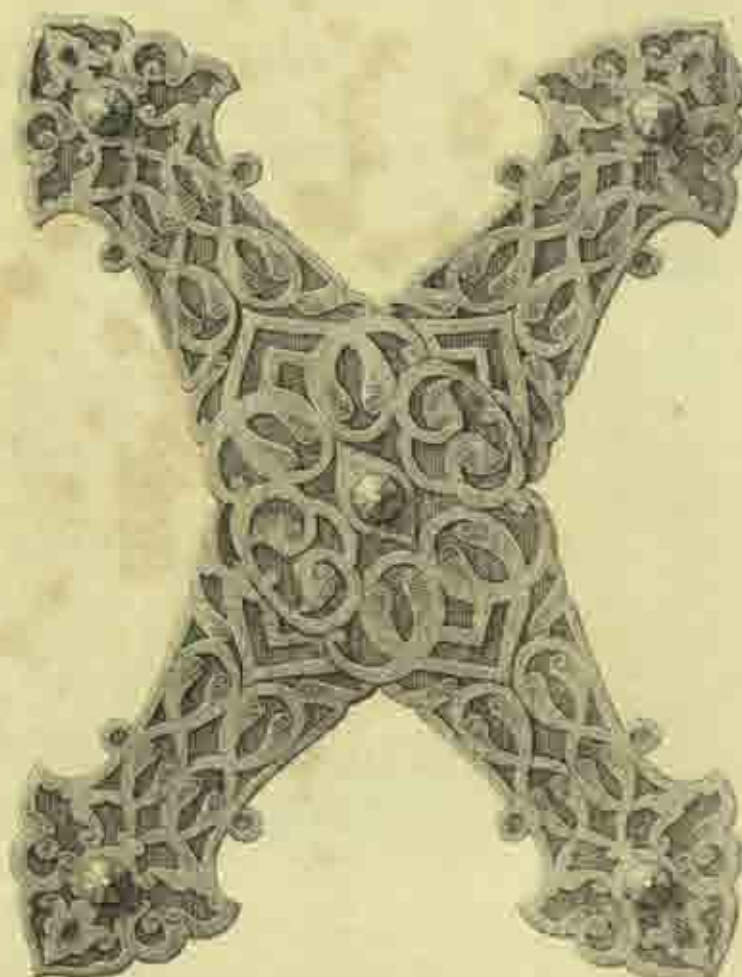
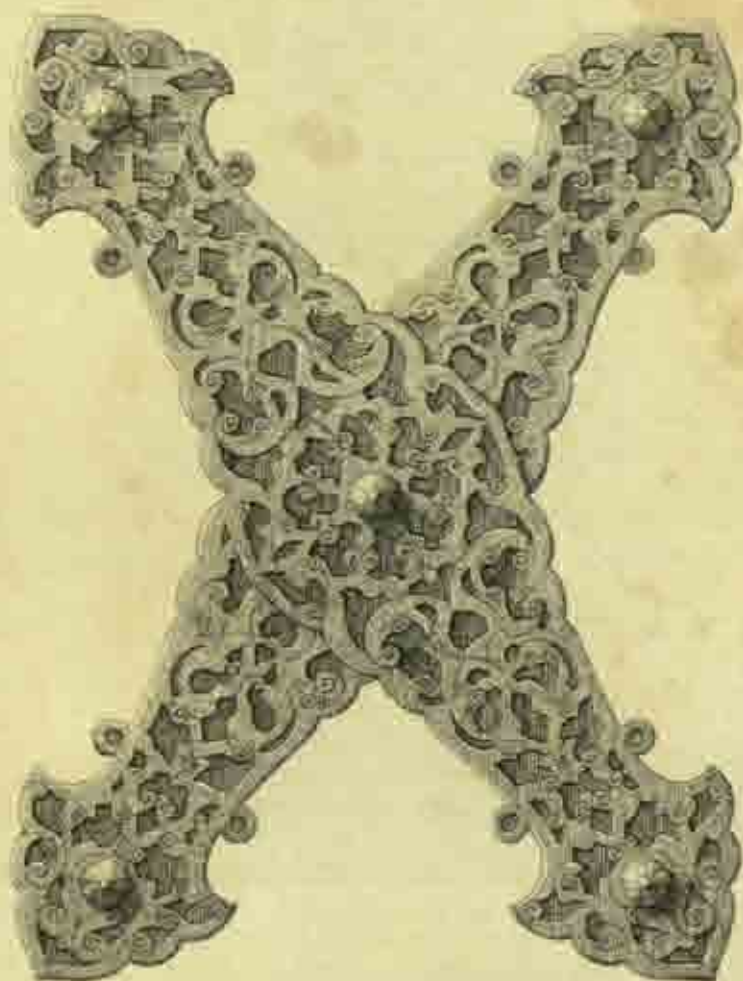
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SCALE OF 1" INCHES.

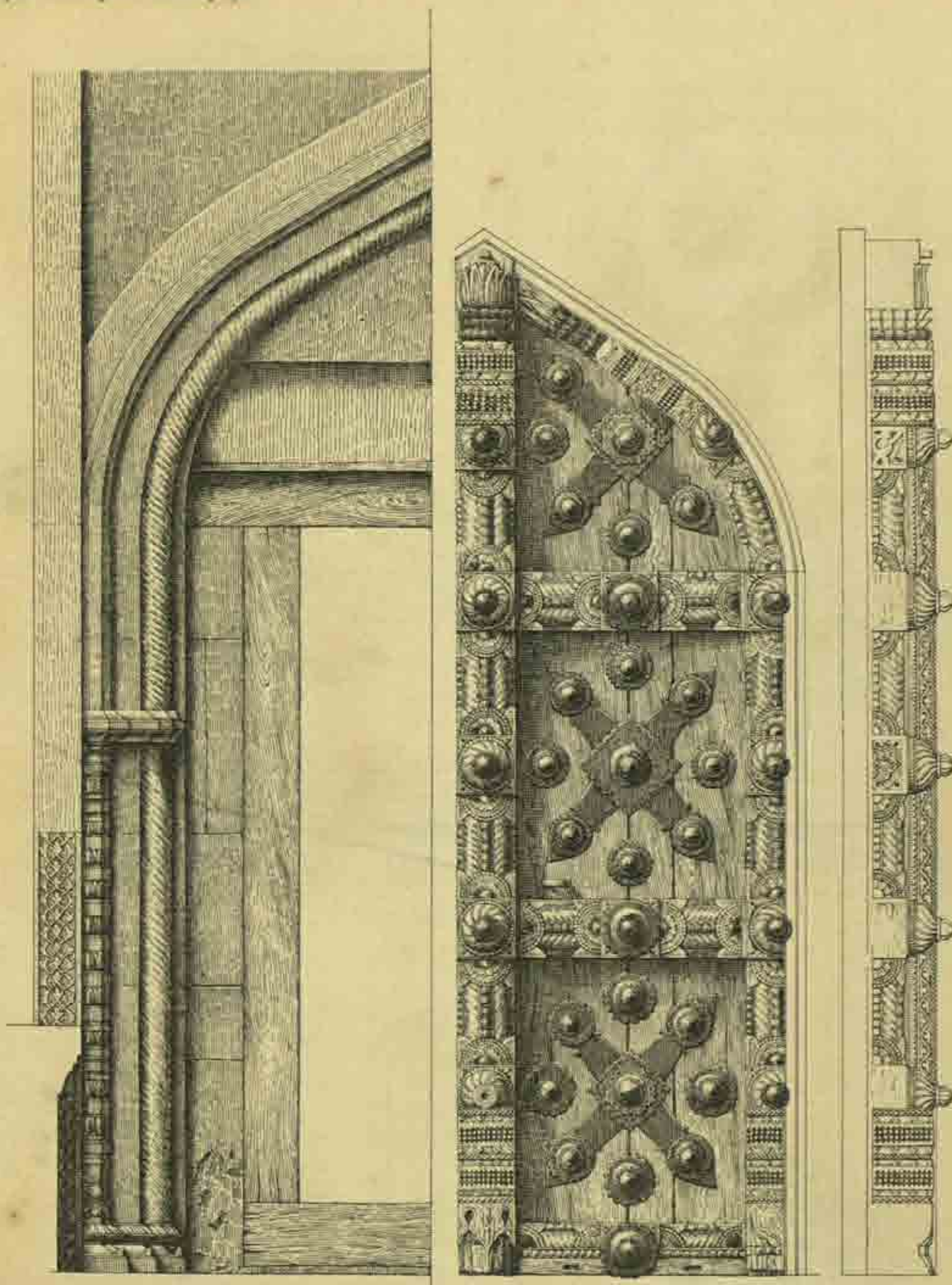


SCALE OF 1" INCHES.

IRON BOSSES FROM SHAH KARIM'S TOMB AND THE MIHTARI MAHAL, BHAUFUR.

Govt. Archæol. Survey of Western India.

No. 817.



Section.

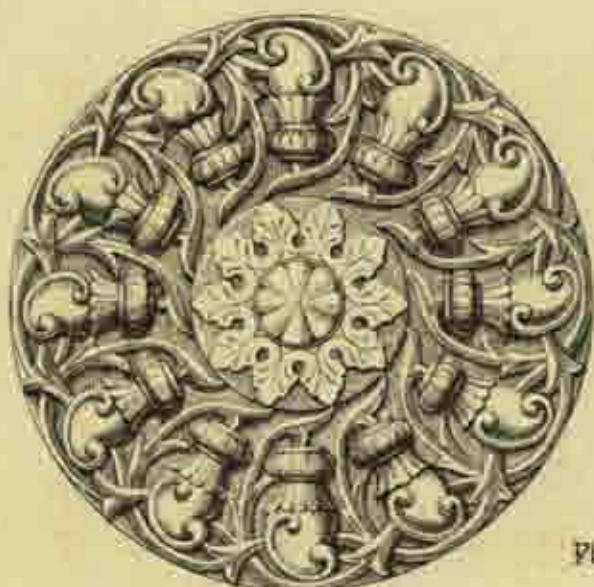
HALF INNER DOORWAY AND OUTER DOOR, MIHTARI MAHAL, BIJAPUR.

SCALE OF 12" 1 2 3 4 5 FEET

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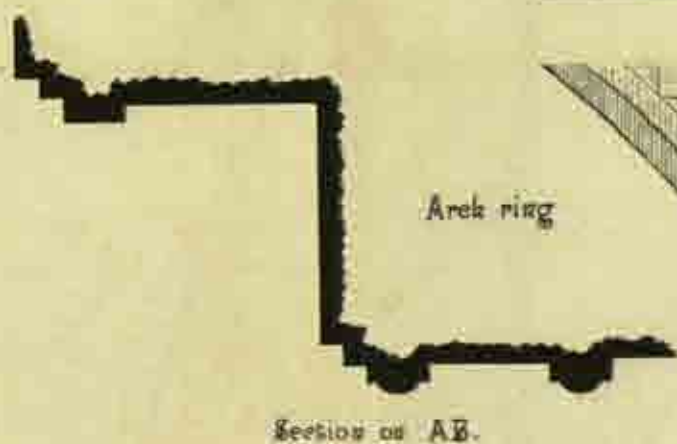


Govt. Archæol. Survey of Western India.
No. 832.



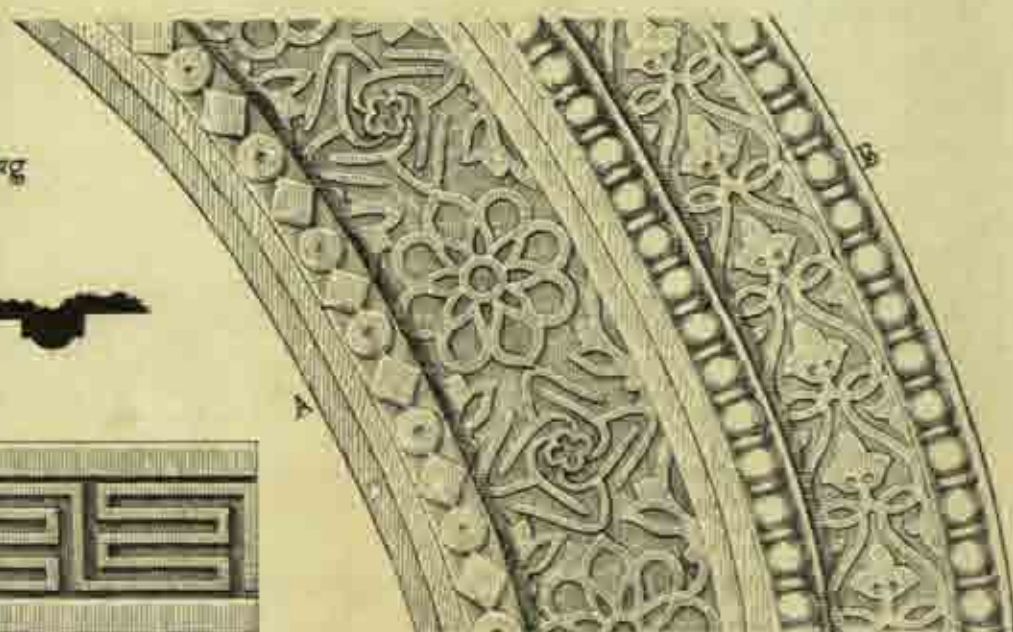
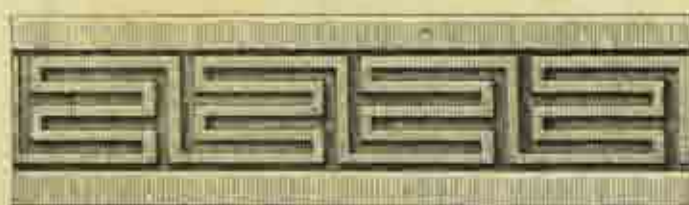
Plaster Medallions.

SCALE OF 1/2" INCHES.



Arch ring

Section as AB.



SCALE OF 1/2" INCHES.



Corner Panel



Window



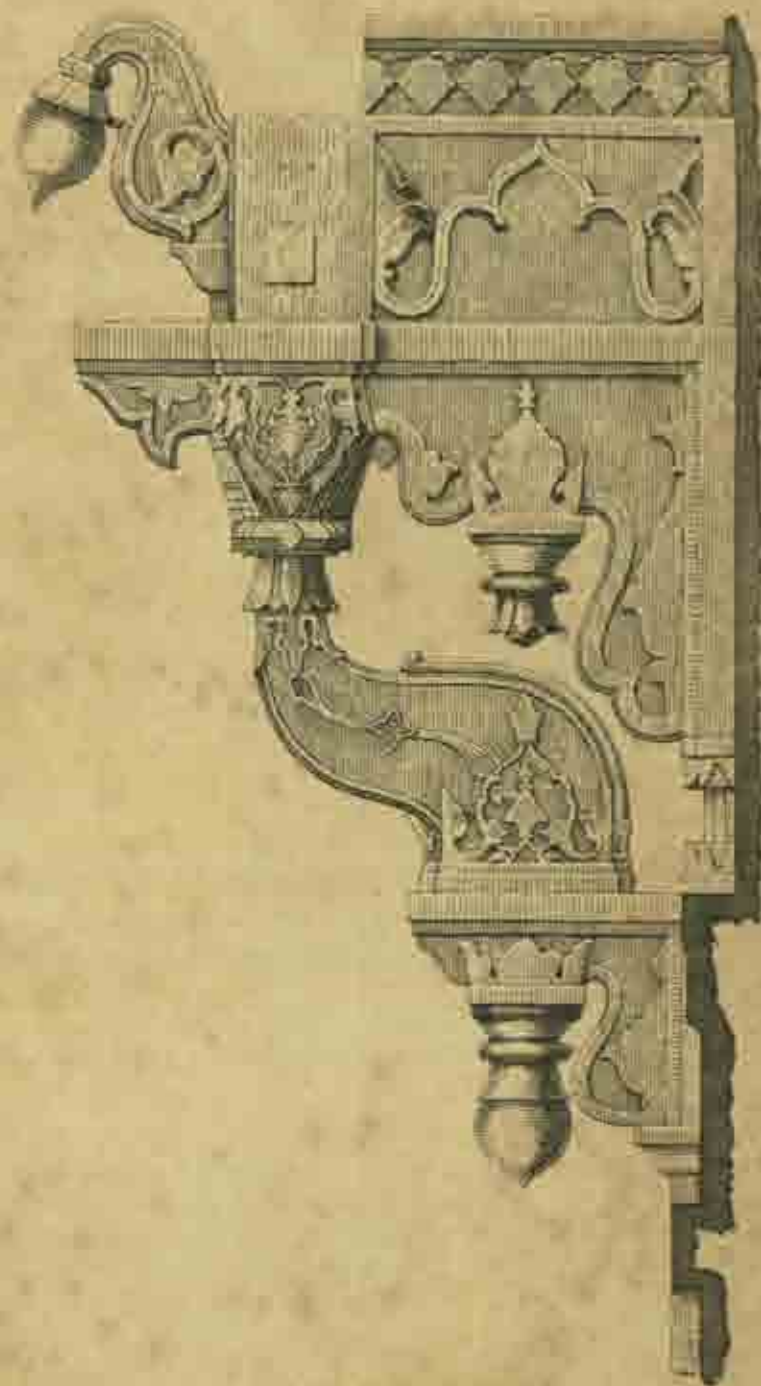
SCALE OF 1/2" FEET.

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DETAIL OF ORNAMENT FROM VARIOUS BUILDINGS, KJAFUR.

Arch. Archaeol. Survey of Western India.

No. 853.

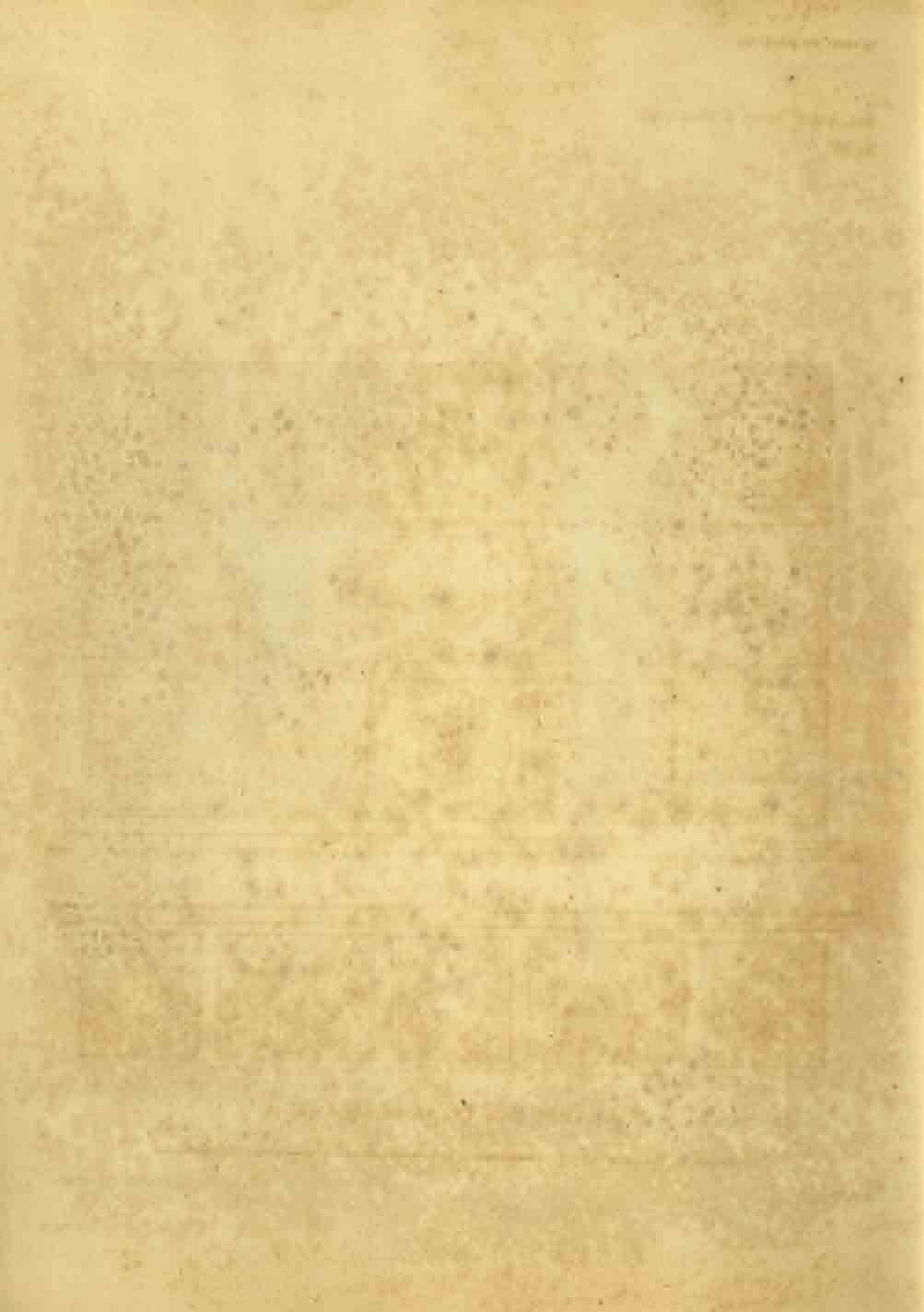


CORNICE BRACKET, NAVA GUMBAZ, BIJAPUR.

CORNICE BRACKET, KUMBAR MASJID, BIJAPUR.

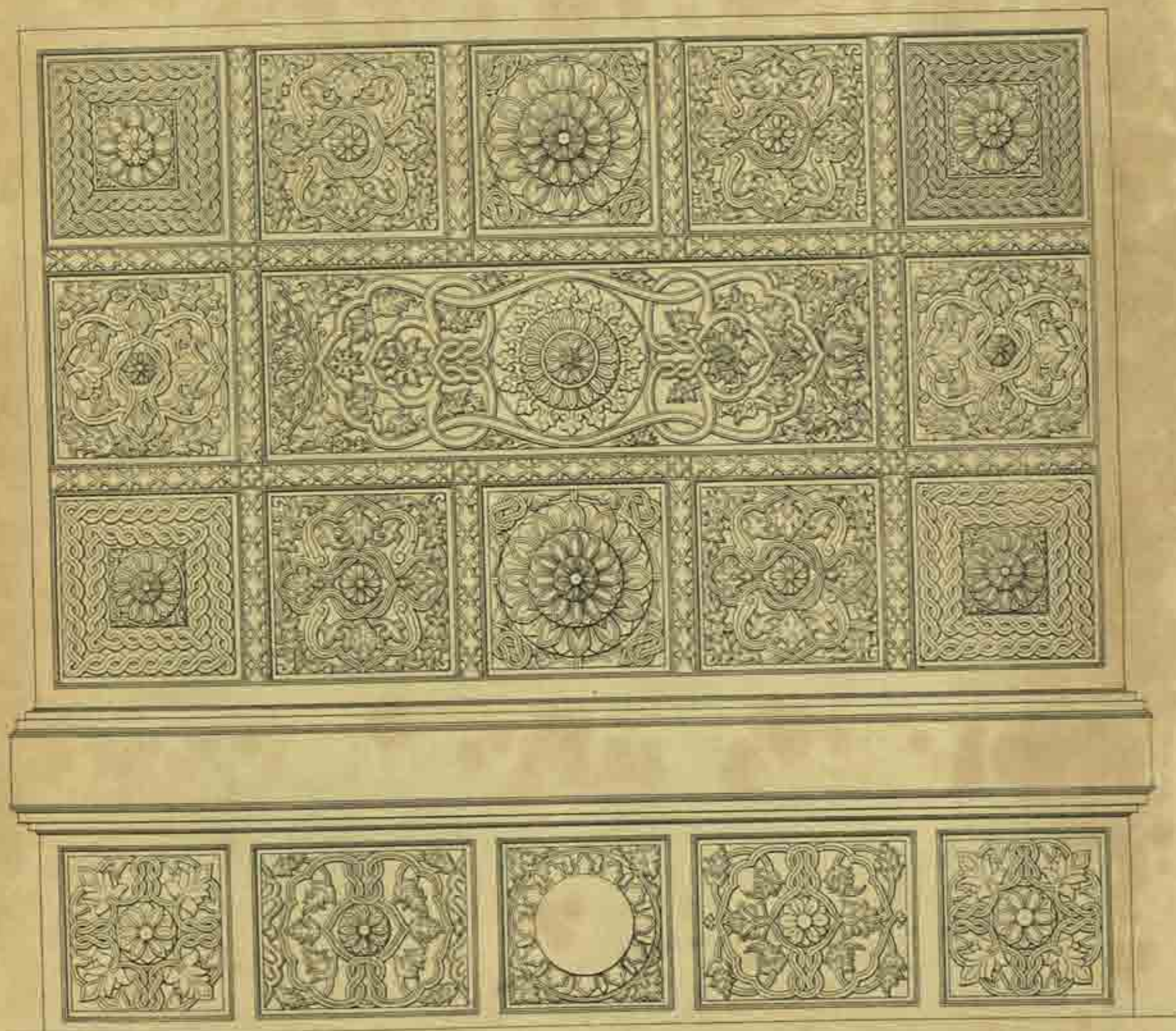
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SCALE OF 12" 1 2 FEET.



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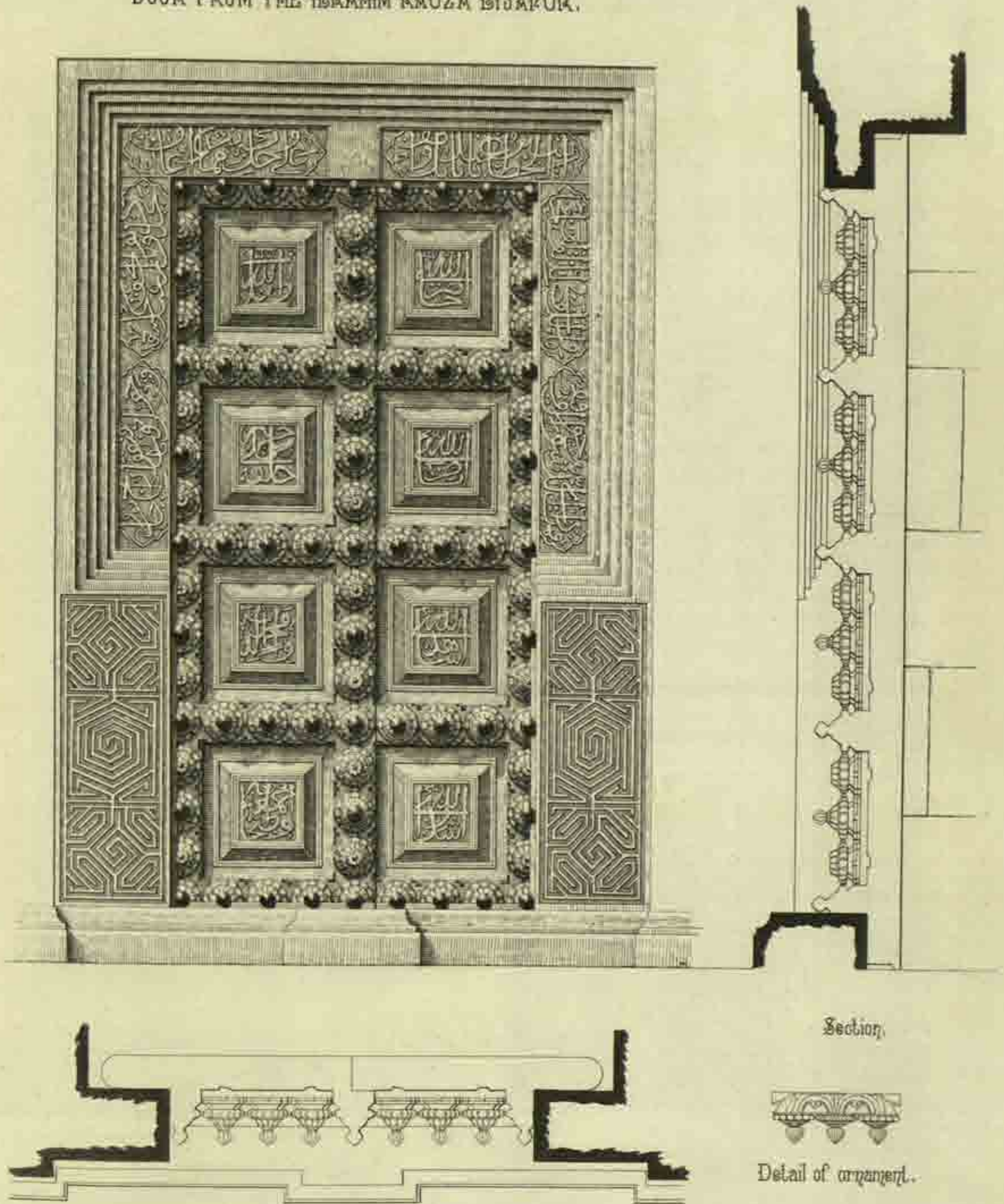


GELLING PANEL FROM THE IBRAHIM RAUZA, BIJAPUR.

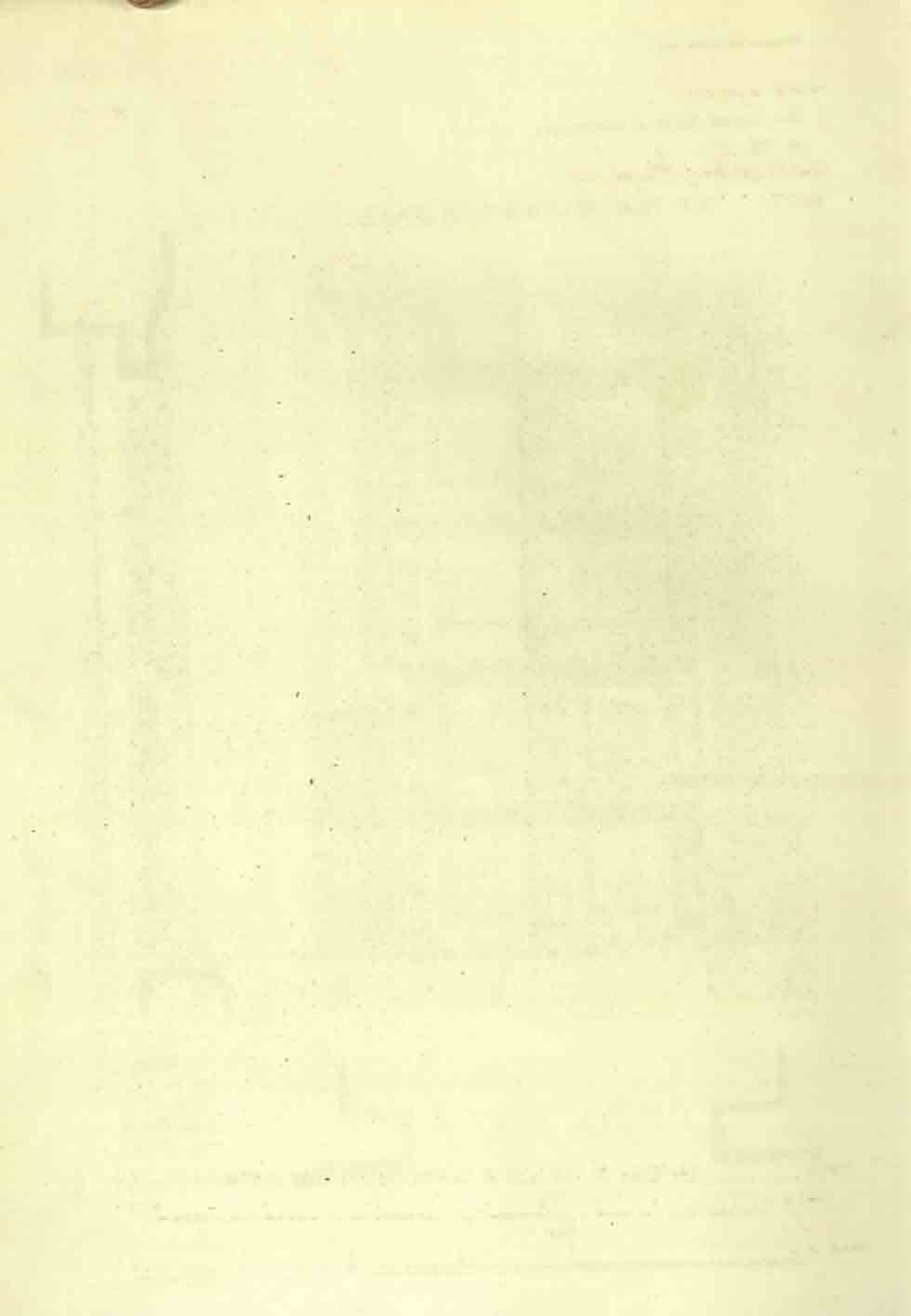
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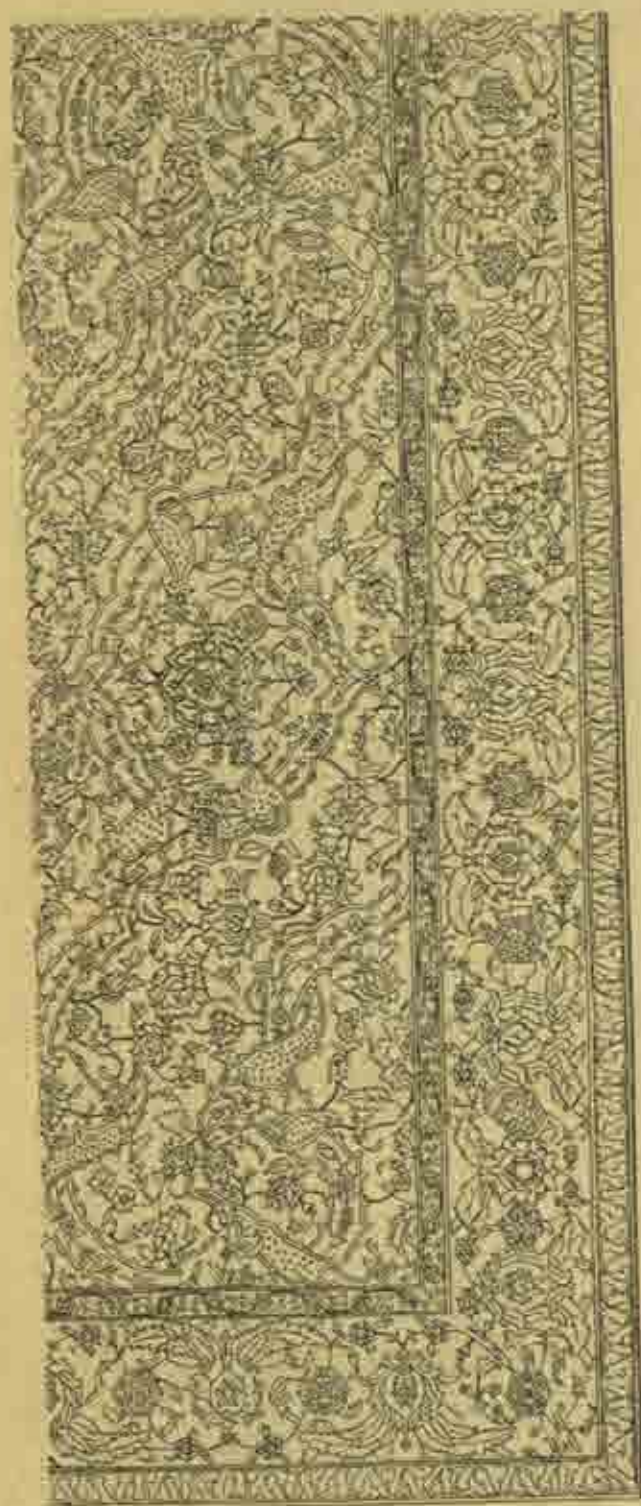
DOOR FROM THE IBRAHIM RAUZA BIJAPUR.



SCALE OF 12" FEET. 1 2 3 4 5



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No. 876.

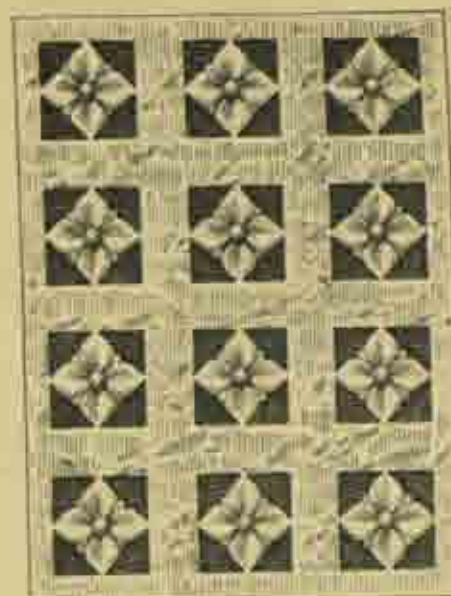
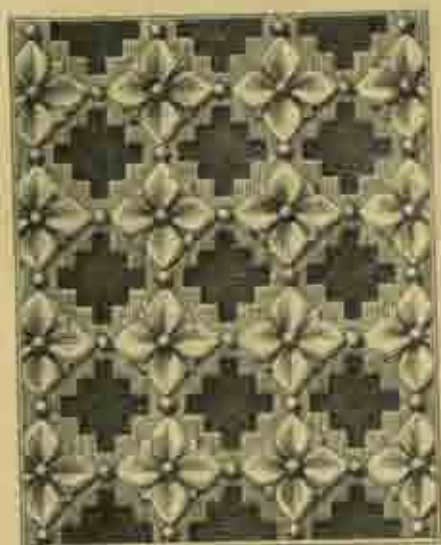


PATTERNS OF OLD PERSIAN CARPETS PRESERVED AT BJAPUR.

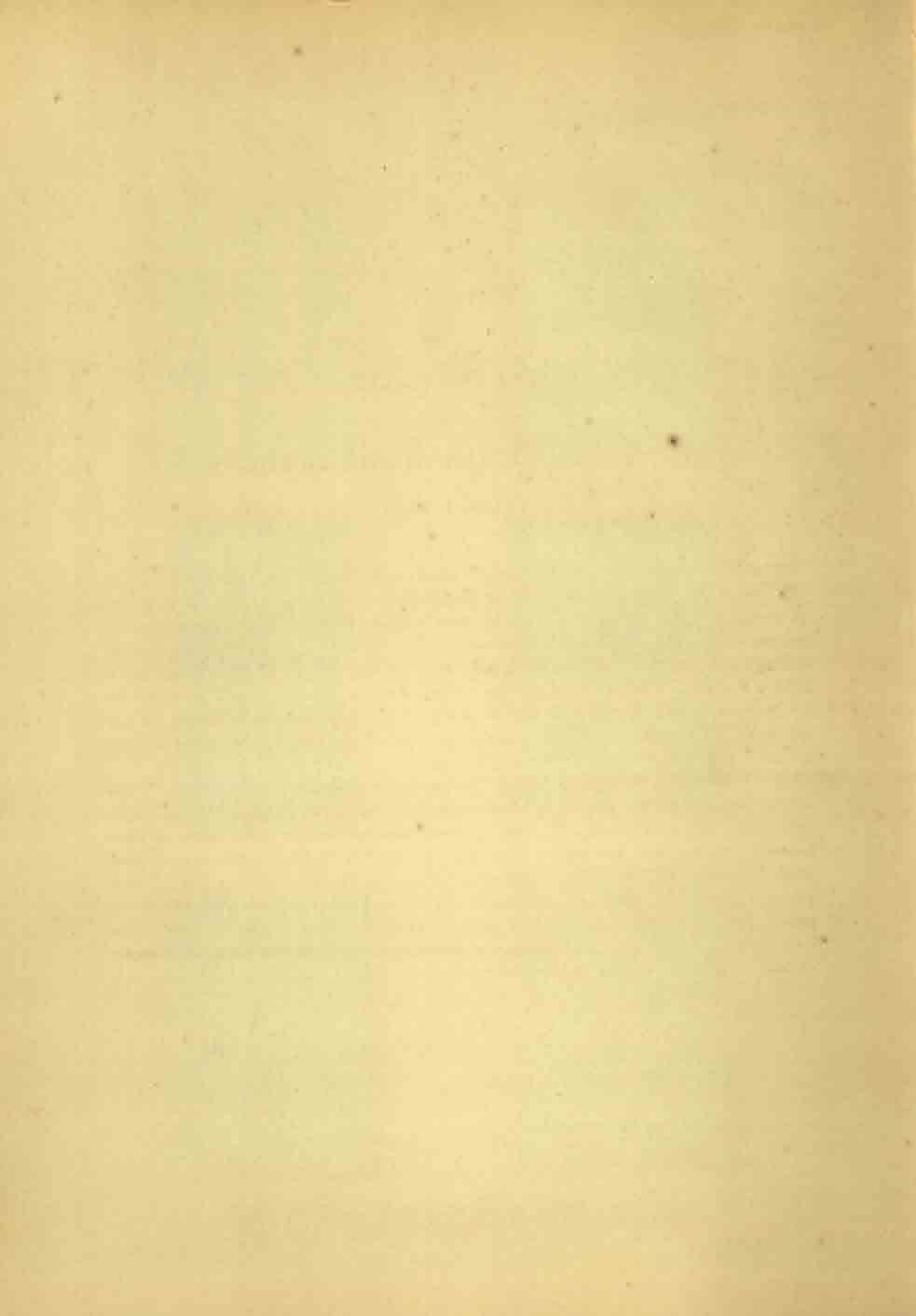
SCALE OF 12" 1 2 3 4 5 6 7 8 9 10 FEET

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No. 910.



PERFORATED STONE SCREEN WORK FROM CHALUKYAN TEMPLES.



NOTES ON PLATES
FOR
THE TECHNICAL ART SERIES (MADRAS) 1891.
PLATES I to IV.

THESE ornaments are from the temple of Virabhadra at Lépáksha in the Anantapur District of the Madras Presidency. The temple is a large one, enclosed in several courts. It dates from the end of the 15th century. In the outer court is an extensive mandapa studded with rows of granite piers, on which these ornaments are carved. These piers belong to the Vijayanagar period of Dravidian architecture, and though a general design is visible in all, each one is worked with a different ornament. The plan of the pier is either square or polygonal, with a raised panel on the four faces, running up the shaft from base to capital, on which the ornament is carved. A pier that shews the adaptation of the designs, and is similar in other respects to these, is that in figure 3, plate V of this series.

The designs shew great variety of form. The most usual feature in Dravidian carving is the running scroll, and various varieties of it are represented here. Some of these have the simple curving stem, others are interlaced or plaited, and some combine this with birds, diapers or other features. In other cases the stem is intertwined after the form of the links of a chain. Other features introduced are rows of diapers, and square and circular pateras. The lower body of each pier is a square, with mouldings connecting it with the shaft similar to those shewn in figure 1, plate I. On this portion, square or circular panels are usually introduced. These are often filled in with representations of snakes coiled and twisted around each other in intricate designs. Examples of these are given in figure 11, plate II, and figure 10, plate IV.

PLATE V.

Figs. 1 and 2.—These two examples of teakwood piers are from the temple of Mailāraliṅgappa at Mailāra in the Bellary District. The temple is considered an important one from a religious point of view, but architecturally it does not present many unusual features. The piers stand in an outer maṇḍapa. They are comparatively late work, dating from after the 17th century.

Figs. 3 and 4.—These are examples of stone piers from the large and important temple of Mār-gasahāyar at Viriñjipuram in the North Arcot District. The temple is enclosed in several courts. The principal inner shrine has the unusual feature of being semi-circular in plan, and is the work of the Chólas of the 11th century. The outer courts were built during the Vijayanagar period, or from the end of the 15th century. To that date these piers belong. They represent two varieties of a class of pier usual in this style of architecture. The shaft is often square or octagonal, with a scroll ornament on the four principal faces. Great variety is often shewn in its treatment. The base is square with an intermediate series of mouldings connecting it with the shaft. The capital is represented by a short beam or cantilever, forming a bracket on two sides as in figure 3, or, when placed at the intersection of two ceiling beams, four brackets with overhanging drops, as in figure 4.

PLATE VI.

Fig. 1.—This is a specimen of a 13th century Chalukyan ceiling from the temple of Kattēśvara at Hirahadagalli in the Bellary District. The temple is a small one, built entirely of black stone, and covered with most minutely carved ornament, in some parts almost as fine as jewellery or work in ivory. Unfortunately, it is partly ruined, and a large open pillared mandapa, which had stood in front, has now only the foundations remaining. This ceiling has evidently formed part of the roof of this mandapa, as it was lying covered by earth near the foundations. These ceilings are usually in the form of a flat dome constructed of regular courses of blocks, or huge slabs cut into large rings and placed on each other, the whole being crowned by a large slab. There is reason to believe that this example does not represent the complete ceiling, but only the crowning member. These are often cut in most elaborate designs. In the present instance the intertwining stems are almost entirely detached from the hollow surface of the ceiling, being only connected at a few points. The concentric circles of leaf ornament are worked in flat relief on the surface. In the centre is a drop ornament cut in the form of a lotus bud. Occasionally these centre drops are suspended several feet from the crown and formed out of a separate block let through the centre.

Figs. 2 to 4 are two lanners and an umbrella in beaten silver, on an image in the temple of Mallēśvara at Karruvatti, in the Bellary District. They are the work of the present century.

PLATE IV

The first of the figures in this plate is a drawing of a fossil, which is a fragment of a shell, showing the hinge and the beak. The second figure is a drawing of a fossil, which is a fragment of a shell, showing the hinge and the beak. The third figure is a drawing of a fossil, which is a fragment of a shell, showing the hinge and the beak. The fourth figure is a drawing of a fossil, which is a fragment of a shell, showing the hinge and the beak. The fifth figure is a drawing of a fossil, which is a fragment of a shell, showing the hinge and the beak. The sixth figure is a drawing of a fossil, which is a fragment of a shell, showing the hinge and the beak. The seventh figure is a drawing of a fossil, which is a fragment of a shell, showing the hinge and the beak. The eighth figure is a drawing of a fossil, which is a fragment of a shell, showing the hinge and the beak. The ninth figure is a drawing of a fossil, which is a fragment of a shell, showing the hinge and the beak. The tenth figure is a drawing of a fossil, which is a fragment of a shell, showing the hinge and the beak.

FATHPUR SIKRI is some twenty-three miles west of Agra, and was erected by Akbar during 1570-1606 A. D. The style of Architecture employed is peculiar to Upper India and is the outcome of Hindu and Muhammadan talent. The city is built of red sand-stone and the originals illustrated by this and the subsequent plates are worked in that material. The whole is now being surveyed by the Archæological Department and will be fully dealt with in a future report.

PLATE VII.

ORNAMENT FROM THE CHAURASI GUMBAZ, KALPI.

THE Chaurasi Gumbaz lies on the south of the main roadway leading from Kalpi, the principal town in the Jalaun District, towards Orai. It was erected as a mausoleum and contains several tombs, beneath one of which, so tradition says, lies Lodi Shâh Bâdshâh. It is of the Sikandar Lodi type, built of stone and faced with stucco.

The plate represents the string courses running round the walls of the square chamber beneath the principal dome in the centre of the building. They are divided into two portions, the one plain and the other ornamented, the latter being decorated with an interlacing semi-circular arcaded pattern, arabesque in design. Fig. III is the most elaborate and is rather overdone. Over the arcading is a horizontal band of undulating leaf carving. Fig. II is more open and plain, and unornamented at the top, but the ground is filled in with small raised rosettes. Fig. I is less elaborate than either of the others. In feeling the design is the same, but it is worked out differently, and stands on a perfectly plain field, enclosed by a narrow fillet slightly in advance of the ornament, and is enriched at the top by a well cut guilloche moulding.

PLATE VIII.

ORNAMENT FROM THE CHAURASI GUMBAZ, KALPI.

LIKE Plate VII this represents string courses from the Chaurasi Gumbaz, but in this case from the exterior of the bastion standing at the north-west angle of the building.

They are very intricate in design and on this account are quite unsuitable for purposes of external decoration. Fig. I is composed of three portions, the upper plain and outward curved; the centre, of five courses projecting one above another; whilst the lower is almost a reproduction of Fig. III, Plate VII. The upper part of the central portion is prettily carved with an interlacing fret and scroll on a background studded with small rosettes, &c., below which comes a plain course and beneath it a "dog-tooth" upon a paneled band filled in with lozenges. Fig. II is less elaborate, and ornamented at the top with a trefoil zigzag pattern below which is a concave member between two plain fillets. From this to the face of the wall the moulding is formed of a series of stepped courses, ornamented with circles connected by semi-circles, dog-tooth and leaf carving.

PLATE IX.
DOORWAY, EAST ENTRANCE, TEMPLE OF CHATUR-
BHUI, ORCHHA, BUNDELKHUND.

THE temple of Chaturbhuj was built by the famous Bir Singh Deo in the 17th century, and belongs to what may be termed the mixed Hindu-Muhammadian style of Upper India. It is notable on account of its close resemblance to many Christian churches and cathedrals, and is closely allied to the noted temple of Mandir Govind Deo at Brindaban.

The principal entrance, illustrated on this plate, is on the east side, but it is probably not the original, as the masonry and workmanship is different to that employed in other parts of the building. In height it is 13'-6" and is 7'-11" wide. On each side is a double architrave of ogee mouldings. The inner one is complete and returns on the threshold and forms a plinth to the jambs, whilst the outer starts abruptly and terminates on a level with the lintel. The bases and caps of the jambs are moulded and carved with leaf ornament. The upper part of the entrance is filled in with richly-carved spandrels resting on moulded struts of stone, as used by the Hindus during the 11th and 12th centuries and to a great extent by the Jains under their domes. In the centre of the spandrels are exquisitely-carved rosettes in bold relief having three concentric circles of leaves, the field around being enriched by raised conventional floral carving and rosettes.

THE HISTORY OF THE
CITY OF BOSTON
FROM 1630 TO 1800

The history of the city of Boston is a story of growth and change. From a small fishing village in 1630, it grew into a major port and center of commerce. The city's development was shaped by its location on the coast, its access to the sea, and its role in the transatlantic trade. The city's growth was also influenced by its political and social structure, which was based on a system of self-government. The city's history is a testament to the resilience and adaptability of its people, who have overcome many challenges and built a city that is one of the most important in the world.

PLATE X.
BRACKET FROM SULTANA'S HOUSE, FATHPUR
SIKRI.

PLATE X illustrates the style of bracketing used to support the stone lintels spanning the space between the verandah piers and carrying the roof, the soffit of which is seen on Plate XV. The abacus of the pendant is square and has carved volutes at the corners, and in depth is of the same thickness as the lintel. Below, it is bell-shaped and leaf-carved, and terminates in a twisted knob, the lower part of which, in this case, is wanting. To the left of the pendant are two small delicately-carved cantilever brackets which, like the abacus, have carved volutes at the corners. The face of the work over the brackets is scroll-carved, and above it comes the lintel, richly ornamented with a repeating trefoil pattern stopping against an oblong panel surmounting the cap of the pillar below, and carved with a zigzag pattern, reminding one somewhat of Norman ornament.

PLATE XI-XIII.

DADO PANEL FROM THE SULTANA'S HOUSE, FATHPUR SIKRI.

FIGURE I of this plate is a reproduction of a dado panel in the Sultana's house, and is taken from the north-east interior angle of the reception-room. In shape it is oblong and is richly ornamented with conventional carving, portraying flowering trees and shrubs, over the branches of which is some carving, Chinese in touch and feeling, which may be meant for flying dragons or clouds. The whole is enclosed in a rich stone frame, 6 inches wide, chamfered on the sides and sunk in the middle, and carved with raised equilateral triangles and semi-hexagons. This is again enclosed by a broader border enriched by an elaborate repeating fret of moresque design on a background studded with rosettes. Over the dado is a rich stone lattice, extending to the ceiling and used as an almirah. Surmounting it is an exquisite frieze of arabesque carving (See Figure III, Plate XIII) crowned by a well-projecting cornice, ogee in form enriched by plain leaf carving and pendants linked together by fleur-de-lis.

Figures II, III, illustrate two jāli windows of geometric design from the "Ankh Machaoli."

PLATE XII.

SOFFIT OF DRIP STONE, SULTANA'S HOUSE,
FATHPUR SIKRI.

THE drip stone illustrated on this plate is of red sandstone and projects some 5'4" from the wall and protects the west verandah from the excessive rain of the monsoon and the fierce glare of the summer sun. It is made of thin wedge-shaped slabs of stone 2½ inches in thickness, cramped together and supported on a stone wall plate, shown on the upper part of the drawing ornamented by a well-cut floral scroll on a plain background. Beyond, the field is feather-ornamented on a background of floral carving, a device often met with in arabic and moresque designs, and similar to one which, according to Owen Jones, is found in the first instance on the Sassanian capitals at Bi-Sutoun.

Beyond are other bands of carving enclosed by a "dog-tooth" moulding, and at the exterior edge is the "drip," the front face of which is carved with facets.

PLATE XIII.

INTERNAL FRIEZE AND CORNICE, AND EXTERNAL CORNICE, SOUTH FAÇADE, SULTANA'S HOUSE, FATHPUR SIKRI.



FIGURE I of this plate illustrates the fasciæ on the north, south, and east sides of the verandah roof, which is constructed of stone slabs wrought in imitation of tiling. The top is scalloped leaf carved and pierced to allow the water to run off freely. Below is a flat ogee moulding enriched by projecting facets, and beneath, is a deep band, throated on the underside and ornamented with a raised interlaced arcading springing from semi-egg shaped pendants with leaves clustered around the top. Below the band and setting back some 1' 10" from its face comes the lintel, an interior view of which is given on Plate X. It is divided into a series of geometrical panels, square and oblong in form, enriched by foliage carving.

Figure II represents the external frieze and cornice above the sloping roof of the verandah. The frieze is splendidly carved with a delicate and well cut floral scroll of exquisite proportions. The cornice projects somewhat in advance of this and is ogee in form and leaf ornamented, surmounted by a band of plain facets, over which is another band studded with small lozenges and incised pellets.

PLATE XIV.

ORNAMENT FROM THE TURKISH SULTANA'S HOUSE, FATHPUR SIKRI.

PLATE XIV gives samples of the piers and pilasters on the exterior of the house. Fig. V is from the north-west angle of the building, and Fig. VI from the south-west corner. The bases and caps are carved and are arabesque in feeling. The carving on the shaft of the pilaster is in basso-relievo, and represents the pomegranate in different stages of development, and from the finish of the work, it is evident it was executed by some master hand. It is enclosed by a narrow raised border ornamented on the outer side by a "tooth" moulding. Figs. I, II, illustrate the ornament on the east verandah pillars, whilst Figs. III, IV, give that on the north verandah piers. One is ornamented with a grape vine in full fruit, another with the vine intermixed with the pomegranate and melon, whilst the others exhibit a more rigid and severe type of ornament, geometric in form, interspersed with raised leaf carving and rosettes.

PLATE XV.

VERANDAH CEILING FROM THE SULTANA'S HOUSE, AND JÂLI WINDOWS FROM THE "ANKH MACHA- OLI," FATHPUR SIKRI.

PLATE XV is a drawing of the soffit of the verandah roof on the south side of the house. It is of stone, in thirteen solid slabs, wrought on the underside into an exquisite paneled ceiling, whilst the outside is worked in imitation of tiling. A portion of the elevation is given on Plate XIII, Fig. 1. It is hipped at the angles and supported on richly carved stone beams projecting inwards some 9" from the face of the ceiling. It is divided into a series of panels by means of raised and ornamented bands corresponding to the rafters of a wooden roof. These main panels are again subdivided into a series of seventy-six smaller ones, filled in with exquisite geometric tracery and pateræ, enclosed by flat herring-bone carved borders. A wealth of ornament is contained in these ceilings, and for beauty and variety of design they are not to be surpassed in Upper India.

TECHNICAL ART SERIES, 1891.

PLATE XVI.

WALL SURFACE DECORATION IN THE TOMB OF
SHAH KARIM, BIJAPUR.

THE surface decoration shewn in Plate XVI is worked out in stone, and surrounds the windows on the inner faces of the walls of the tomb of Shah Karim, a small square-domed building close beside the Jami Masjid at Bijapur. It is cleanly cut, crisp, and neat. It is 18th century work. They form very good designs for ornamental string courses. The shutters attached to these windows are very plain, and are not much in keeping with the ornament around them. They would have been better if decorated with ornamental cross rails and iron studs.

TECHNICAL ART SERIES, 1891.

PLATE XVII.

FACADE ARCH IN THE CHHOTA 'ASAR
MOSQUE, BIJAPUR.

THE little building from which the arch on Plate XVII is drawn does not in the least pretend to any architectural prominence amongst the buildings at Bijapur; it is indeed a very insignificant building. But on the walls within, and upon the façade, it has some very chaste and ornamental plaster work, worked out in rather good designs. The plaster has been laid on about a half or three-quarters of an inch thick, the design traced upon it, and the interstices cut out while wet. This class of work, being executed in ordinary plaster, is not very lasting when used, as much of it is at Bijapur, upon the exposed faces of buildings. It soon disintegrates and crumbles away with the weather, but for interiors it is a very effective decoration. In some cases the design has been backed with colour, but the soft creamy-tinted plaster looks better without this addition.

TECHNICAL ART SERIES, 1891.

PLATE XVIII.

WOODWORK WINDOW IN THE 'ASAR MAHAL,
BIJAPUR.

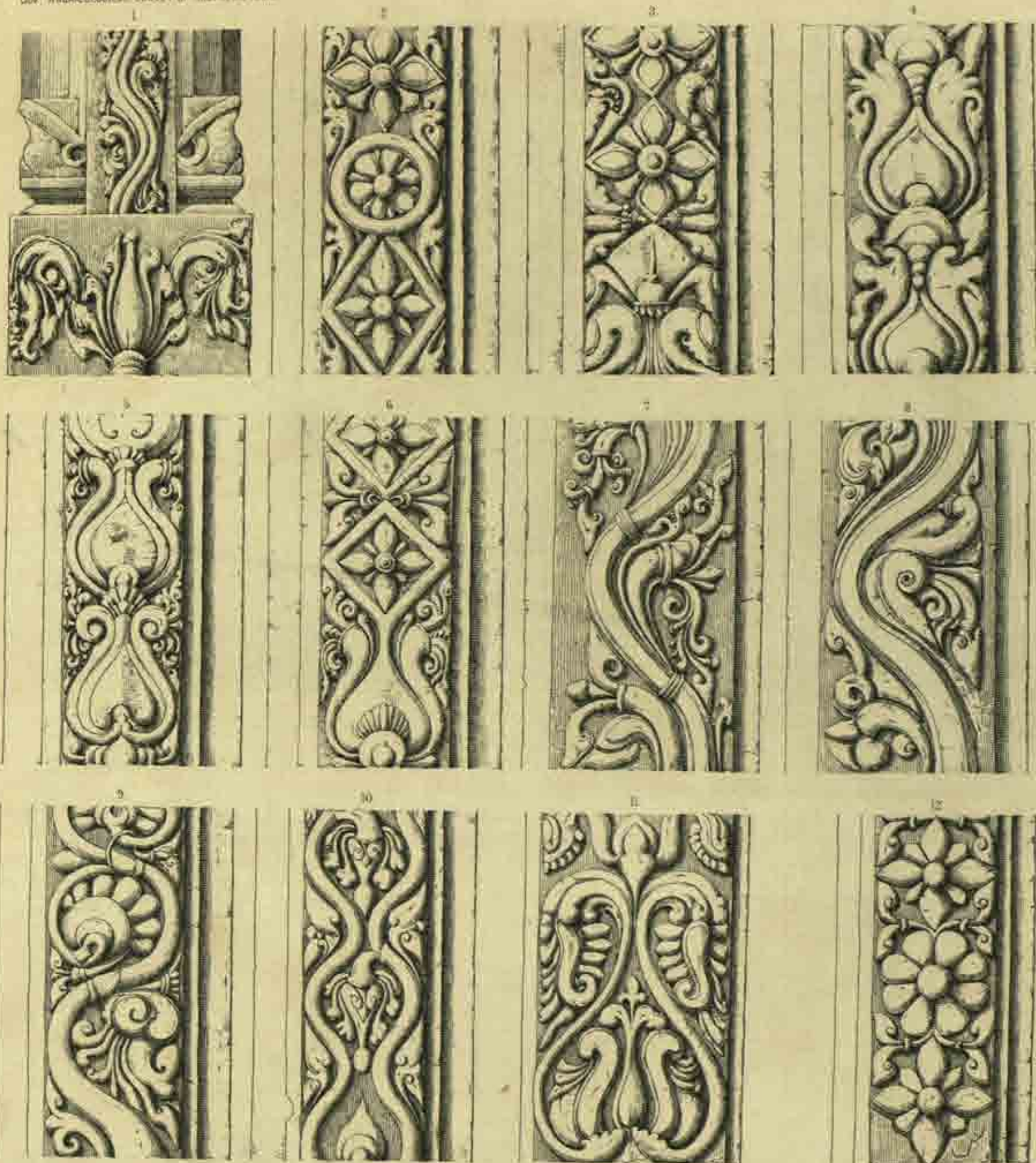
THE building at Bijapur, known as the 'Asar Mahal, was built by Sultan Muhammad, king of Bijapur, about 1646, as a hall of justice, but it was subsequently converted into a semi-religious building in which were deposited relics of the Prophet—two hairs of his beard brought from Makka by a certain saint. Plate XVIII shews the geometric tracery, in framed woodwork, which fills the top of one of the large windows in the upper storey. The lights between the tracery were filled in with coloured glass, a little of which, in yellow and blue, still remains; but it is very doubtful whether these gay colours were any improvement. In coloured glass windows the bright colours are generally so strong that any particular design in the framing is lost in the flood of coloured light which streams in, and the beauty of the geometric tracery in these particular windows must have been rather spoiled by the insertion of the glass, and, as the windows were never exposed to the weather, it would have been infinitely better to have left the design without the glass.



THE END OF THE WORLD



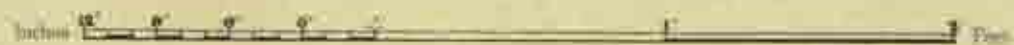
Govt. ARCHEOLOGICAL SURVEY OF SOUTHERN INDIA.



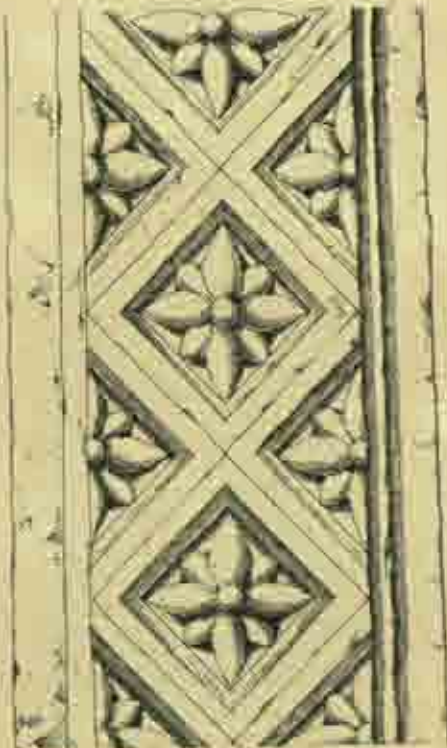
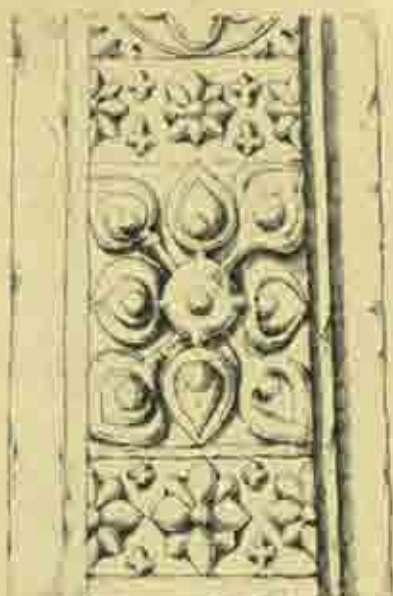
ORNAMENTS FROM THE VIRABHADRA TEMPLE LETAKSHA.

A. B. S. S.

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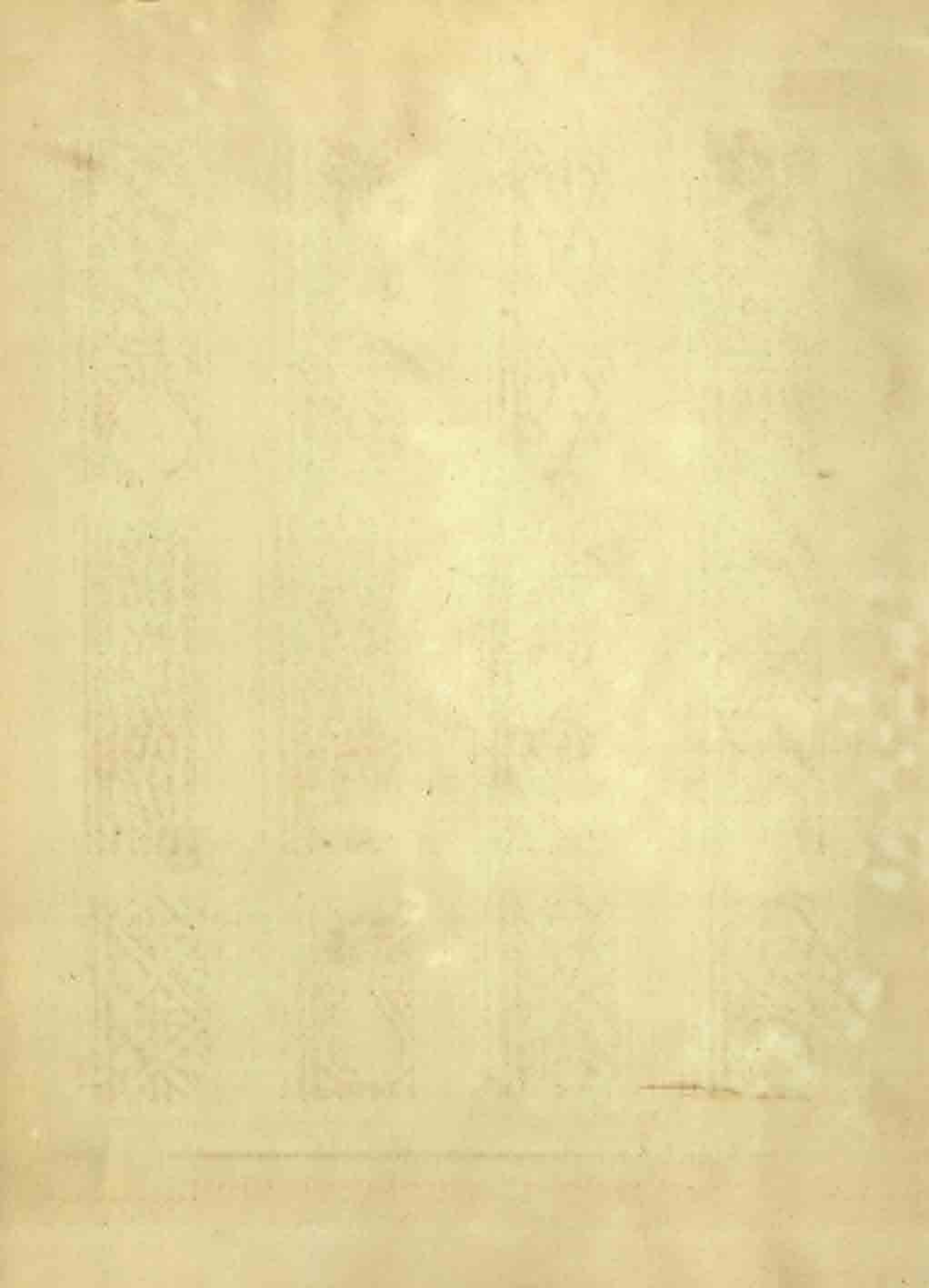
Survey of India Office, Calcutta, April 1891.



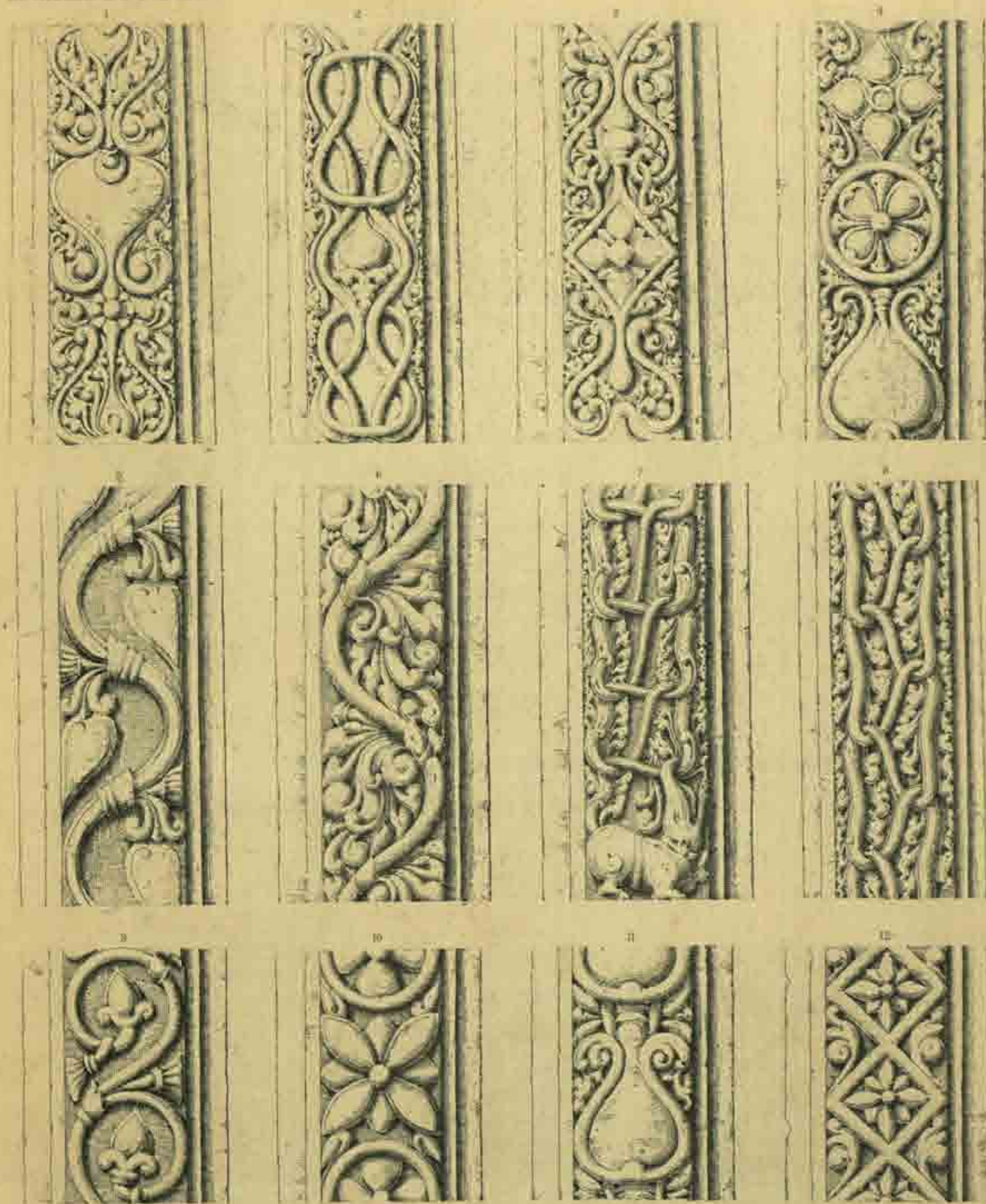
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ORNAMENTS FROM THE VIRABHADRA TEMPLE, GEPARKSHA

Survey of South India, Government of Madras



WEST BRONZEWORK. TURNER OF BISHNUPUR TEMPLE.



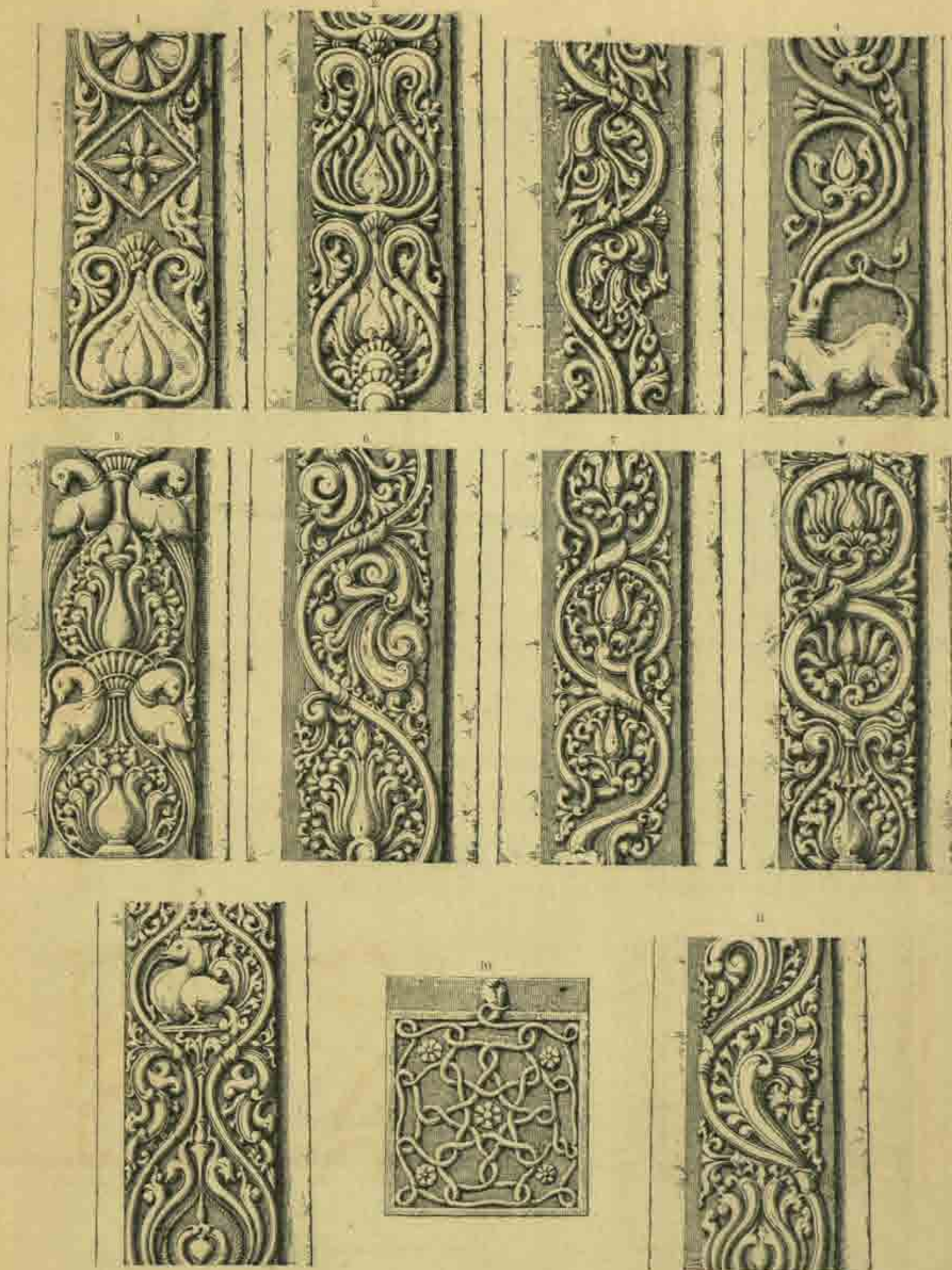
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A. H. S. 1851

ORNAMENTS FROM THE VISHNUPURA TEMPLE, BISHNUPUR.

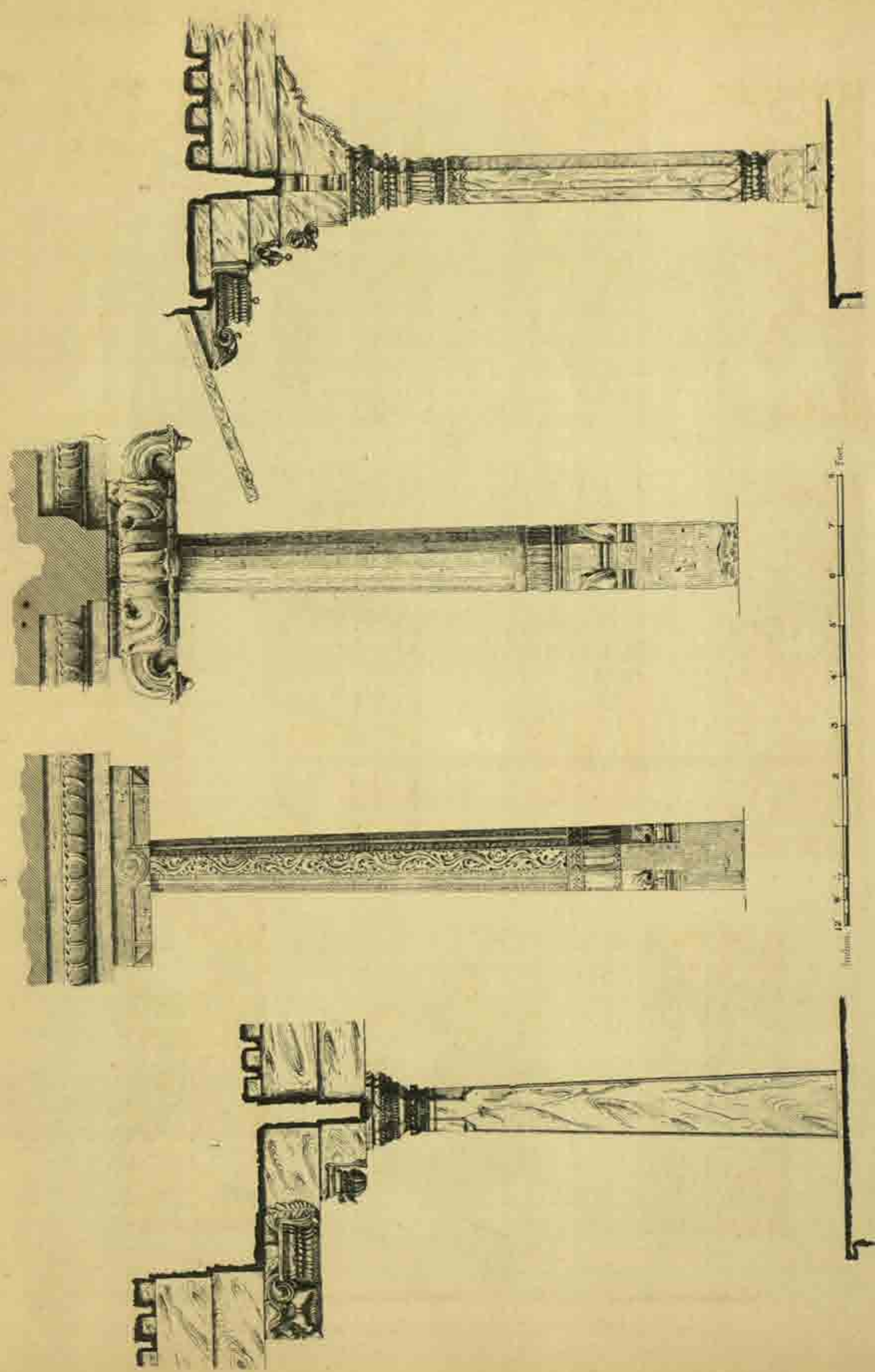
From the collection of the

British Museum, London, 1851.

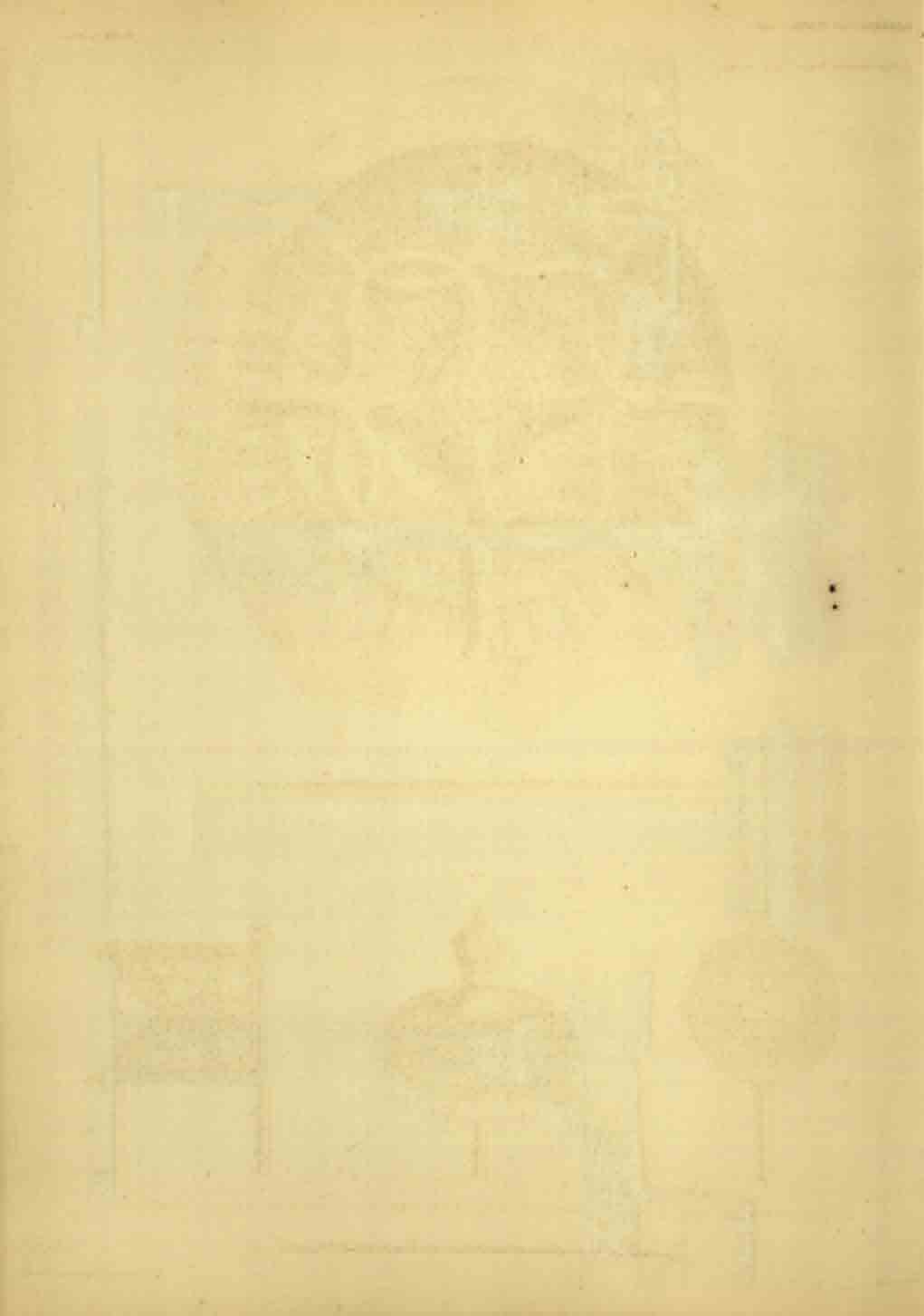


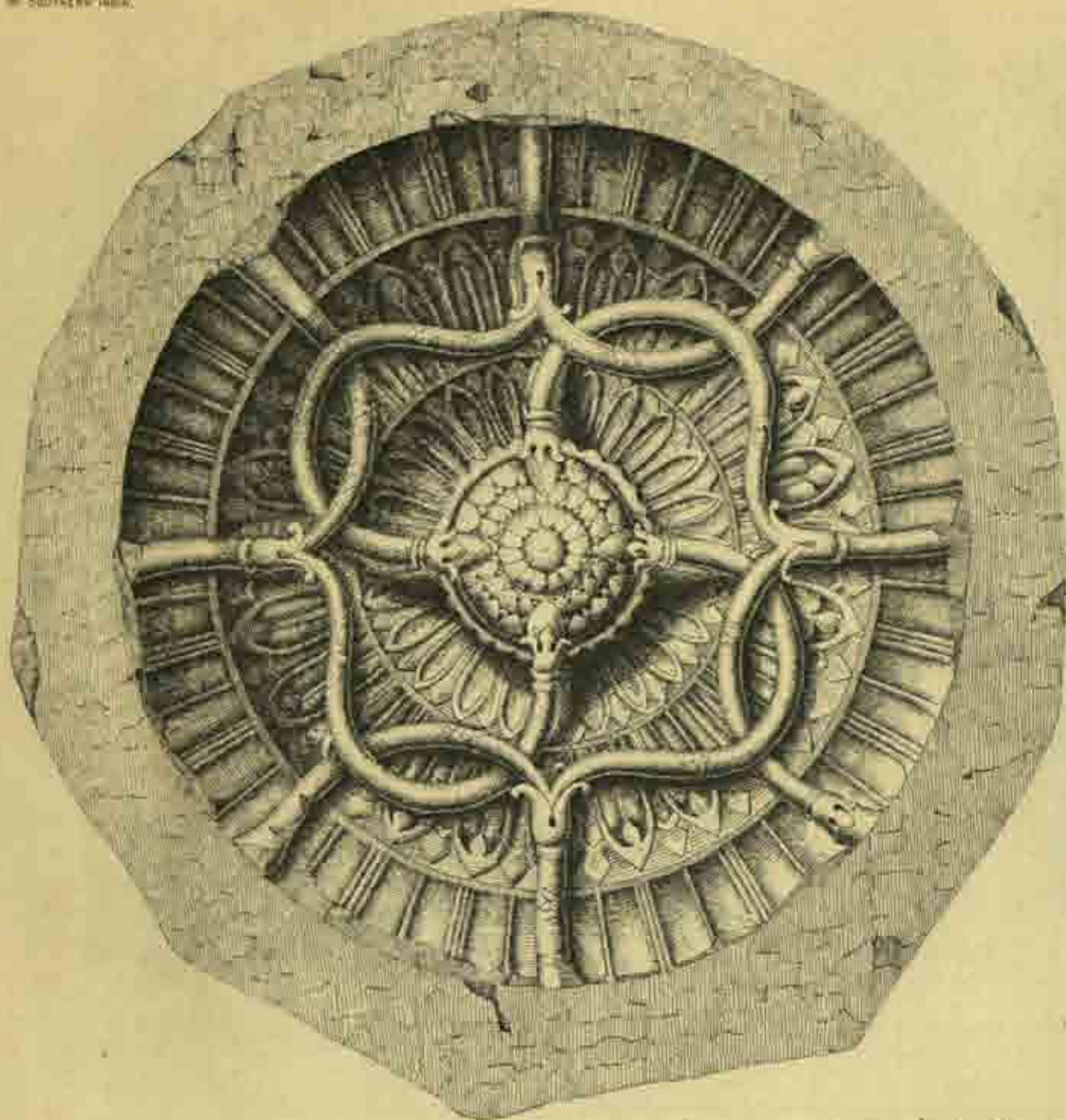
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ORNAMENTS FROM THE VIRABHADRA TEMPLE, IDRAKULLA.



1 and 2 WOODEN PILLARS FROM THE MAHABHARATA TEMPLE, MALABAR, INDIA.
3 and 4 STONE PILLARS FROM THE MAHABHARATA TEMPLE, VIJAYAPURAM.





PLAN OF A CARVED STONE CEILING FROM KATTĒSVARA TEMPLE HIRAHADAGALLI



SILVER ORNAMENTS OF A BRASS IMAGE OF SIVA FROM THE MALLĒSVARA TEMPLE KŪRUVATTI



1

1. The first part of the paper is a list of the names of the persons who have been elected to the office of the President of the United States since the year 1789.

2

2. The second part of the paper is a list of the names of the persons who have been elected to the office of the Vice President of the United States since the year 1789.

3

3. The third part of the paper is a list of the names of the persons who have been elected to the office of the Speaker of the House of Representatives since the year 1789.

4

См. Археологический Справочник Н. В. Прозорова & Дуды. № 127.

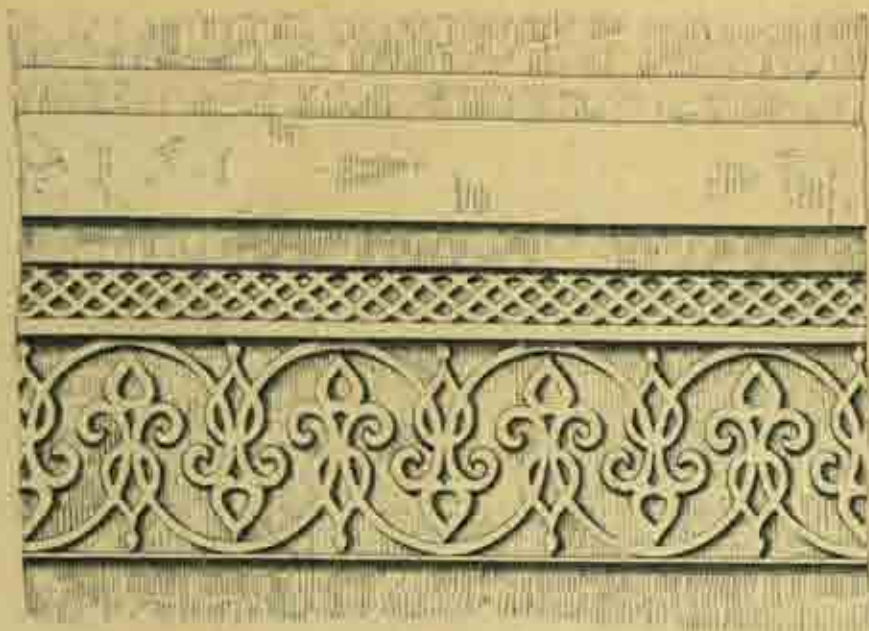


Fig. I

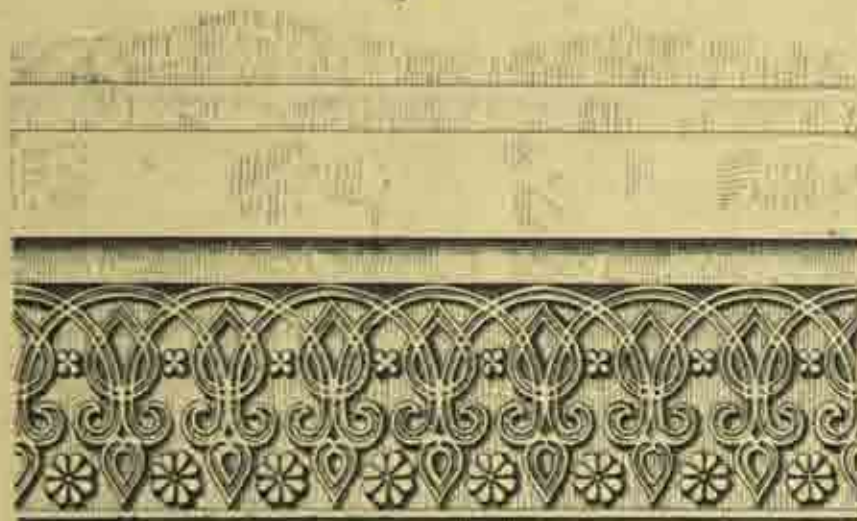


Fig. II

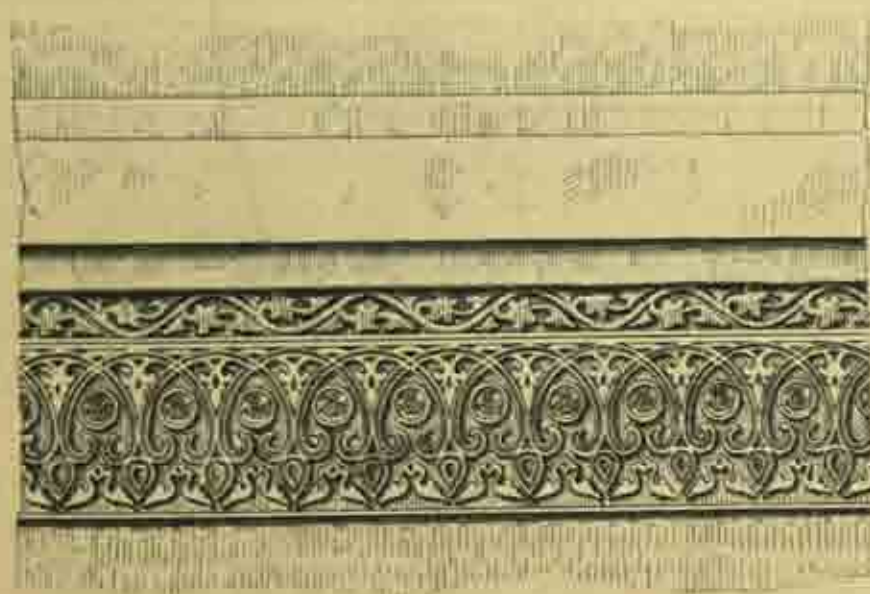
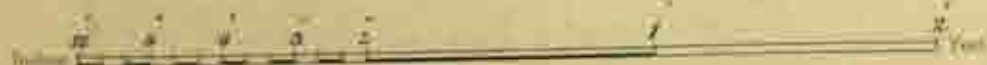


Fig. III

ORNAMENT FROM THE CHAUBARI DUMBAX, KALFI.



Edw. W. Smith, Archt. Surveyor.

Survey of India, Office, Calcutta, Jan 1891.

GOVT. ARCHAEOLOGICAL SURVEY N. W. PROVINCES & OUDH. NO. 128.

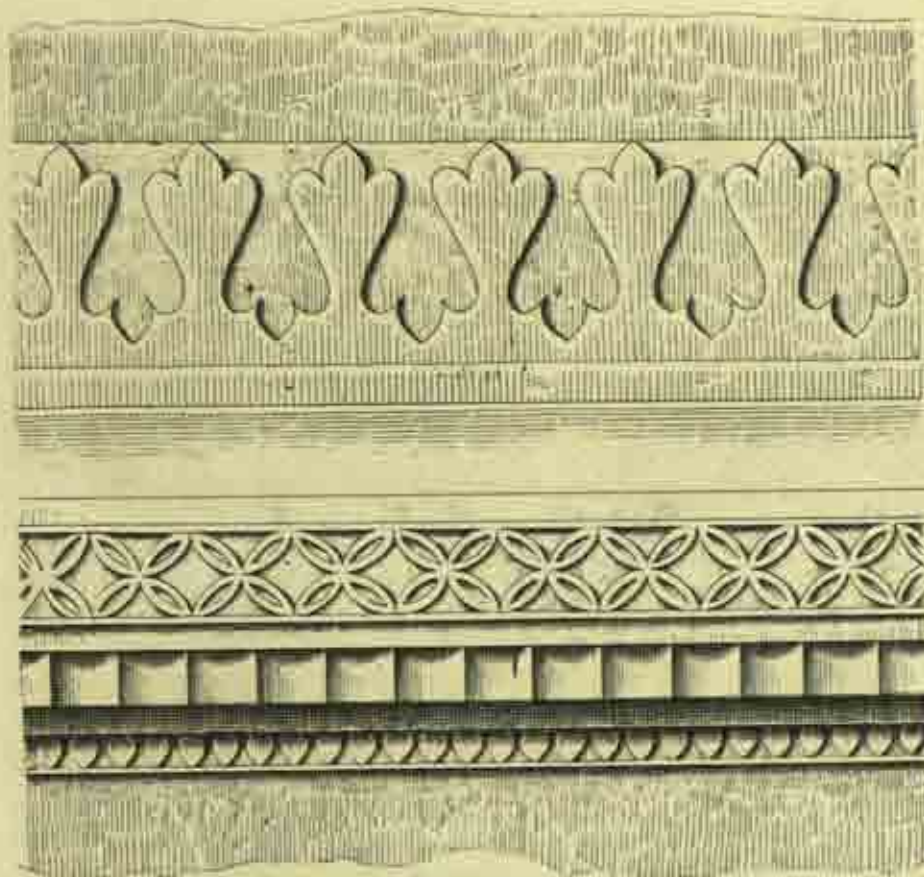


Fig. II

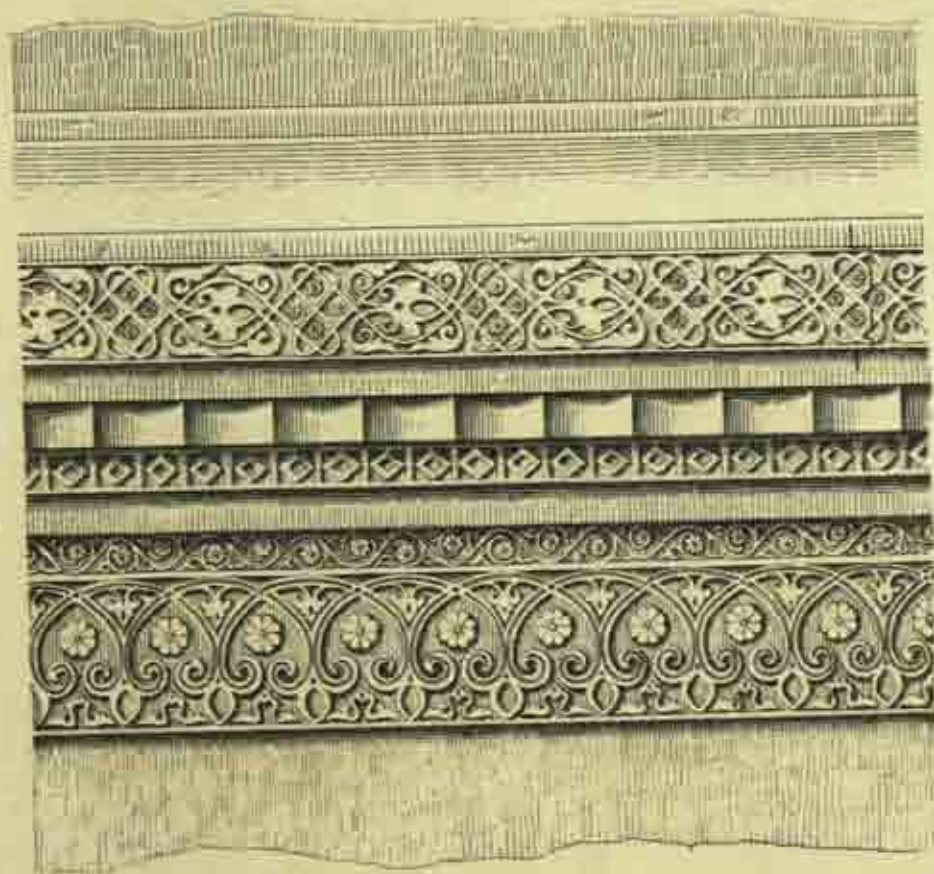


Fig. I

ORNAMENT FROM THE CHAUHANSI GUMBAS, WALPI.



Section

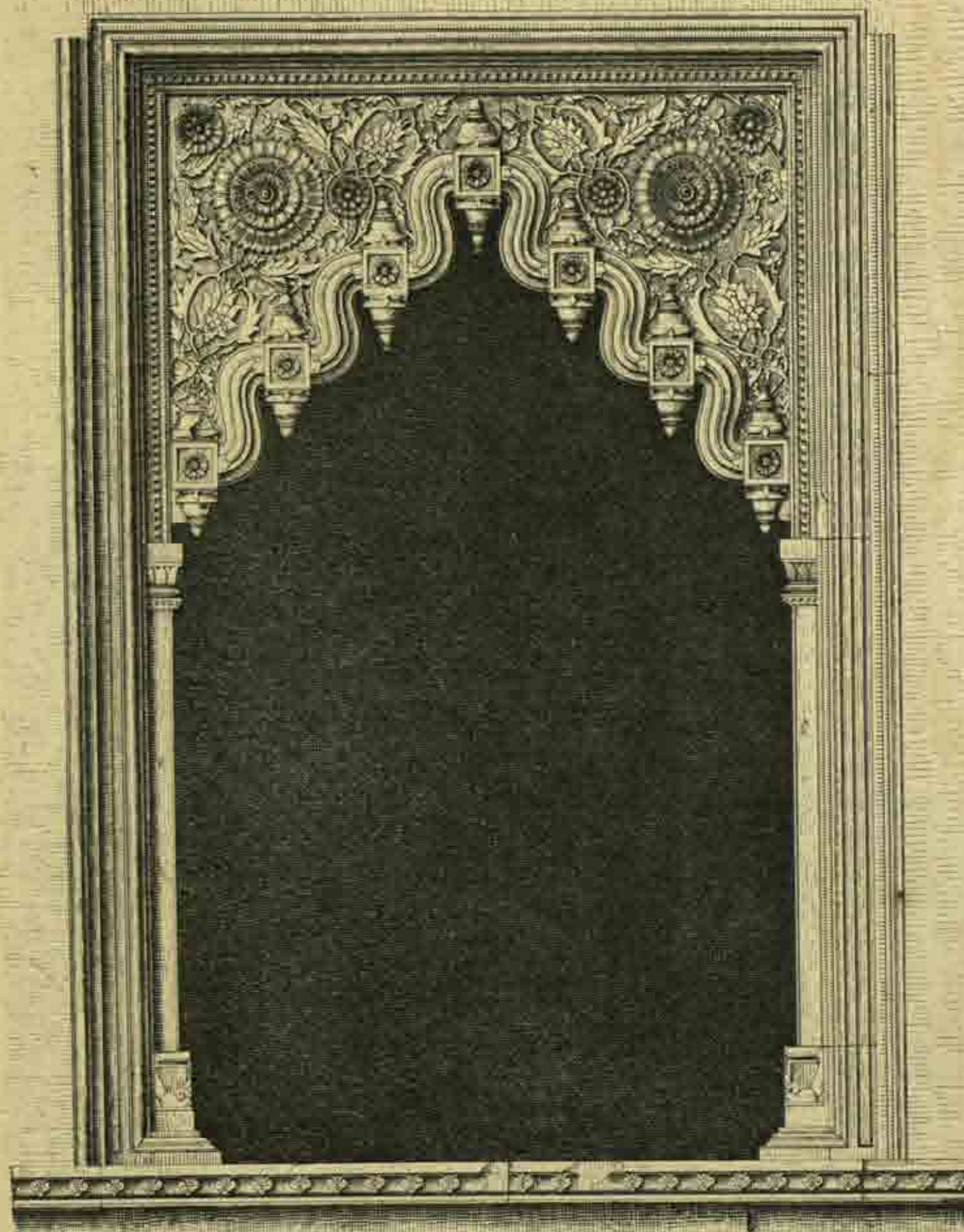


Section

Edw. W. Smith Archt. Engineer.

Survey of India Office, Calcutta, June 1891.

Govt. Archaeological Survey N. W. PROVINCES & Oudh No. 141



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Valmiki

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Threshold

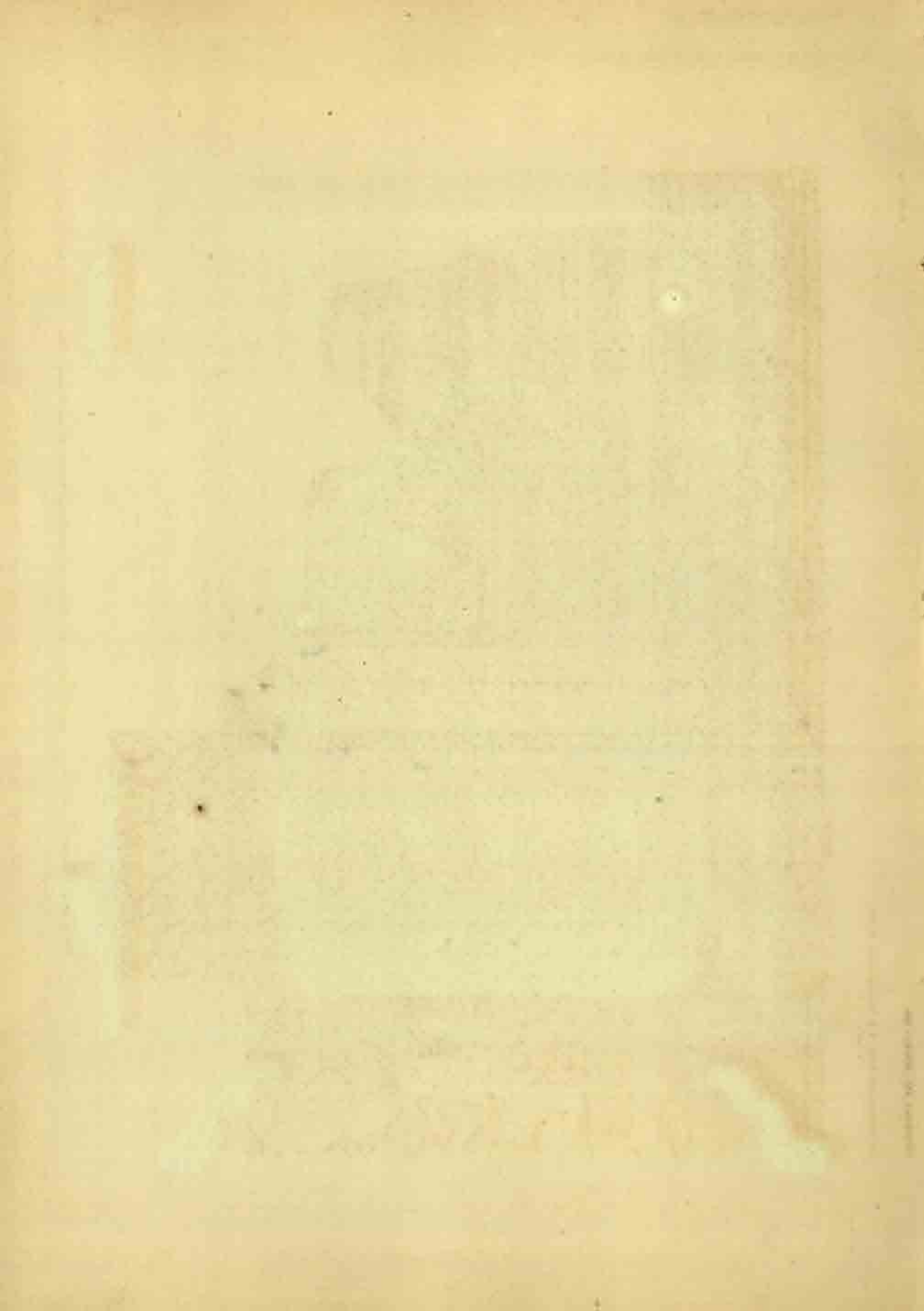
ELEVATION

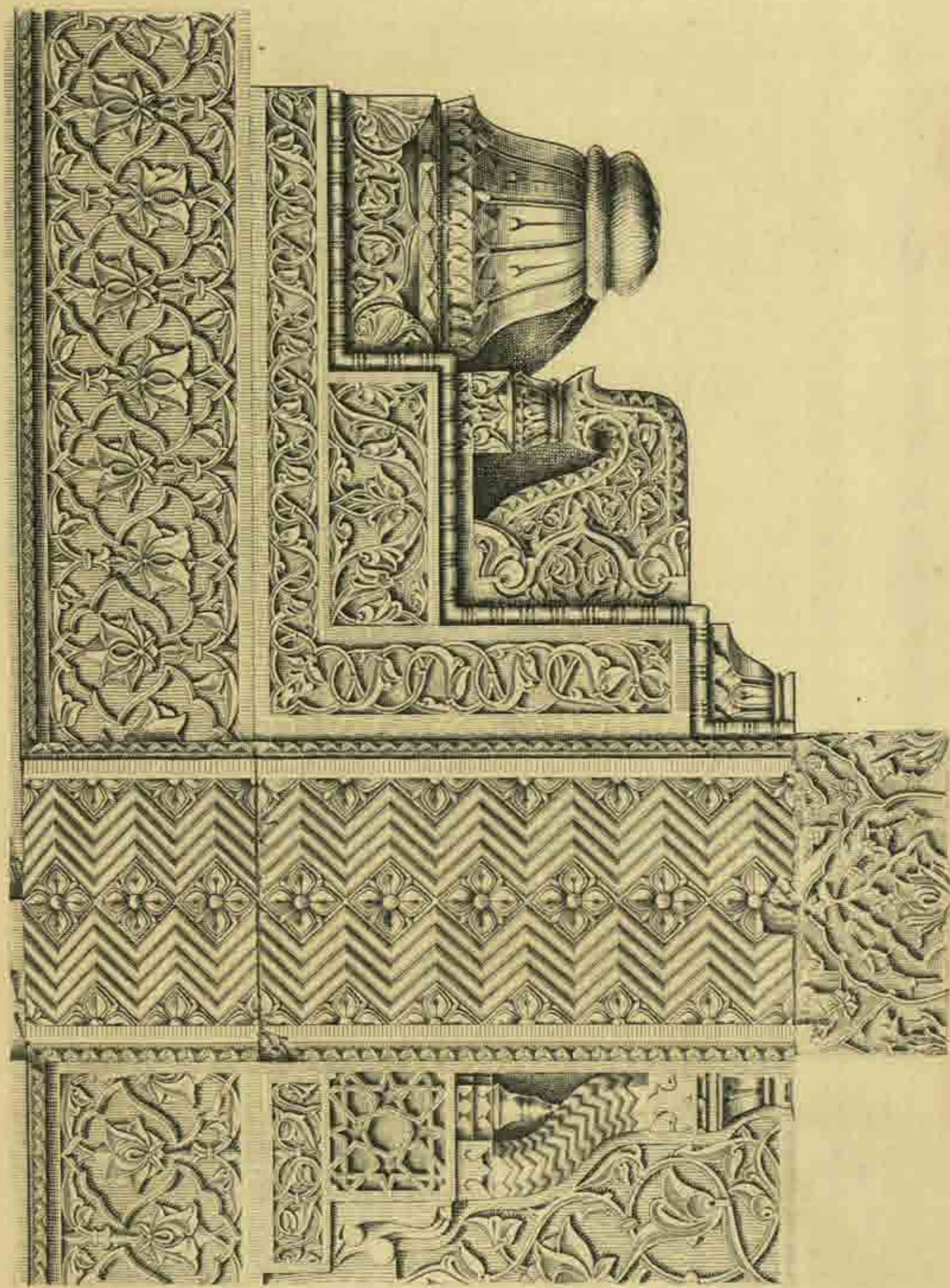


PLAN

0 1 2 3 4 5 6 7 8 9 Feet

Edw. W. Smith, Architect, Bangalore





Scale 1/2" = 1' 0"

W. Smith, Engraver

SECTION FROM THE SULTAN'S HOUSE - ETTENHUSEN, EGYPT.

Copyright of the Sultan, Constantinople, 1831.

Govt. Archaeological Survey N.W. PROVINCES & Oudh No. 206/213.

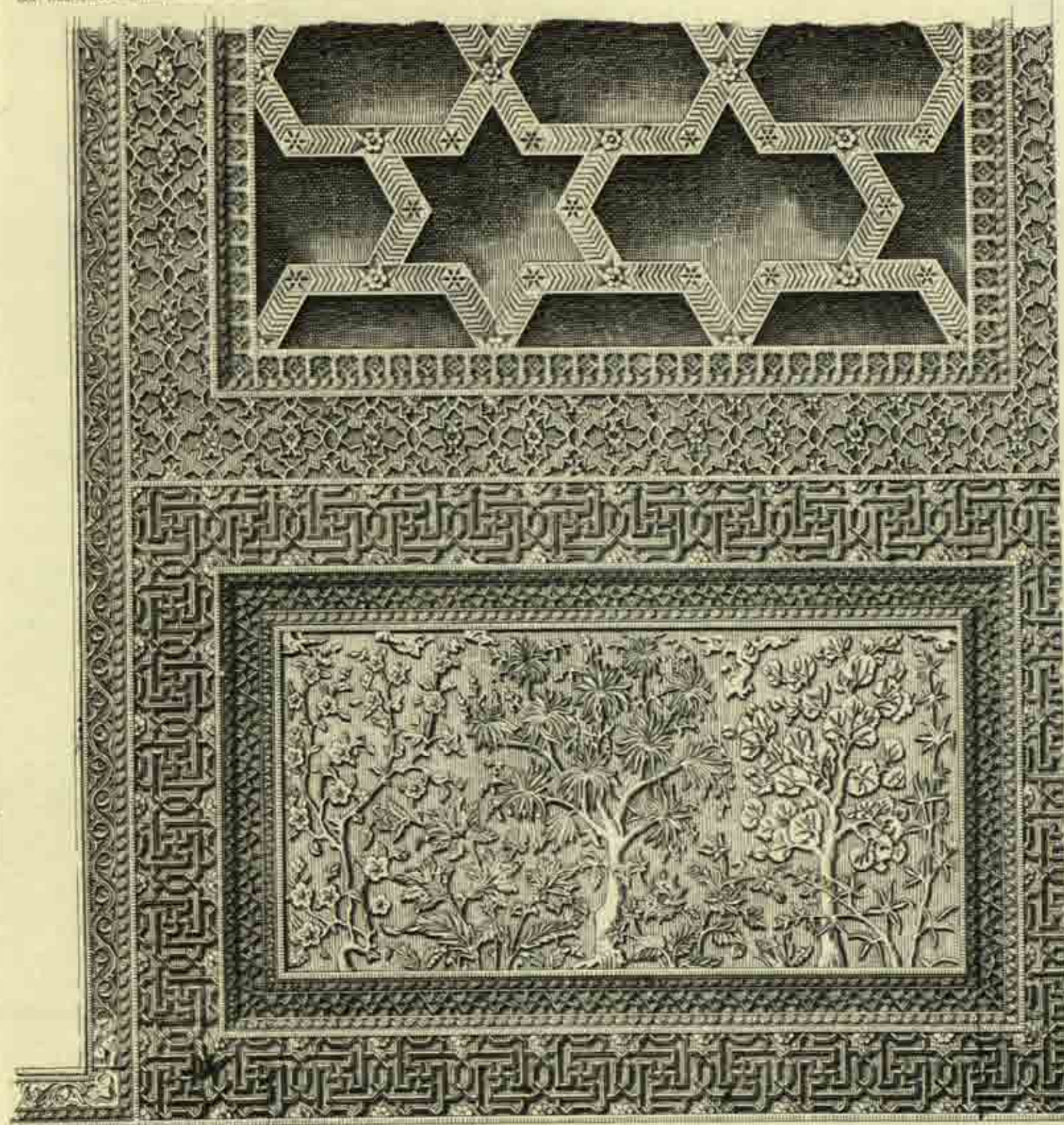


FIG. I.

DADO PANEL FROM SULTANAH'S HOUSE FATEHPUR SIKRI

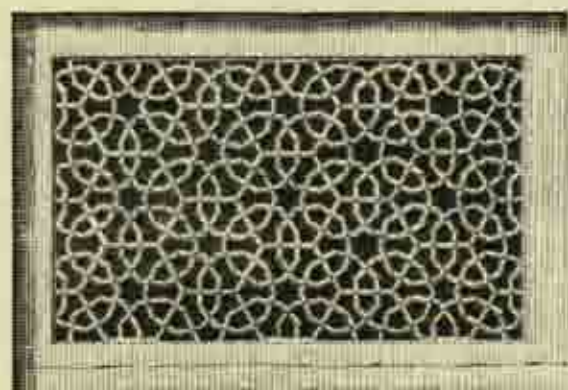


FIG. II.

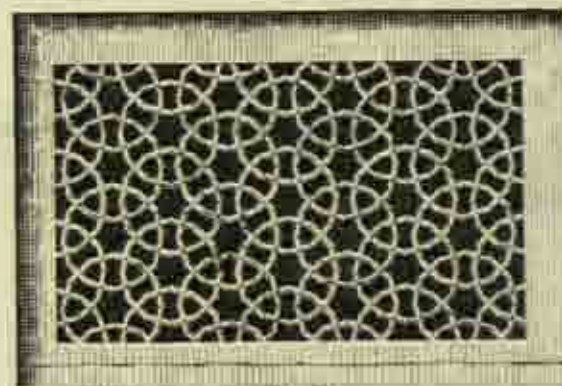


FIG. III.

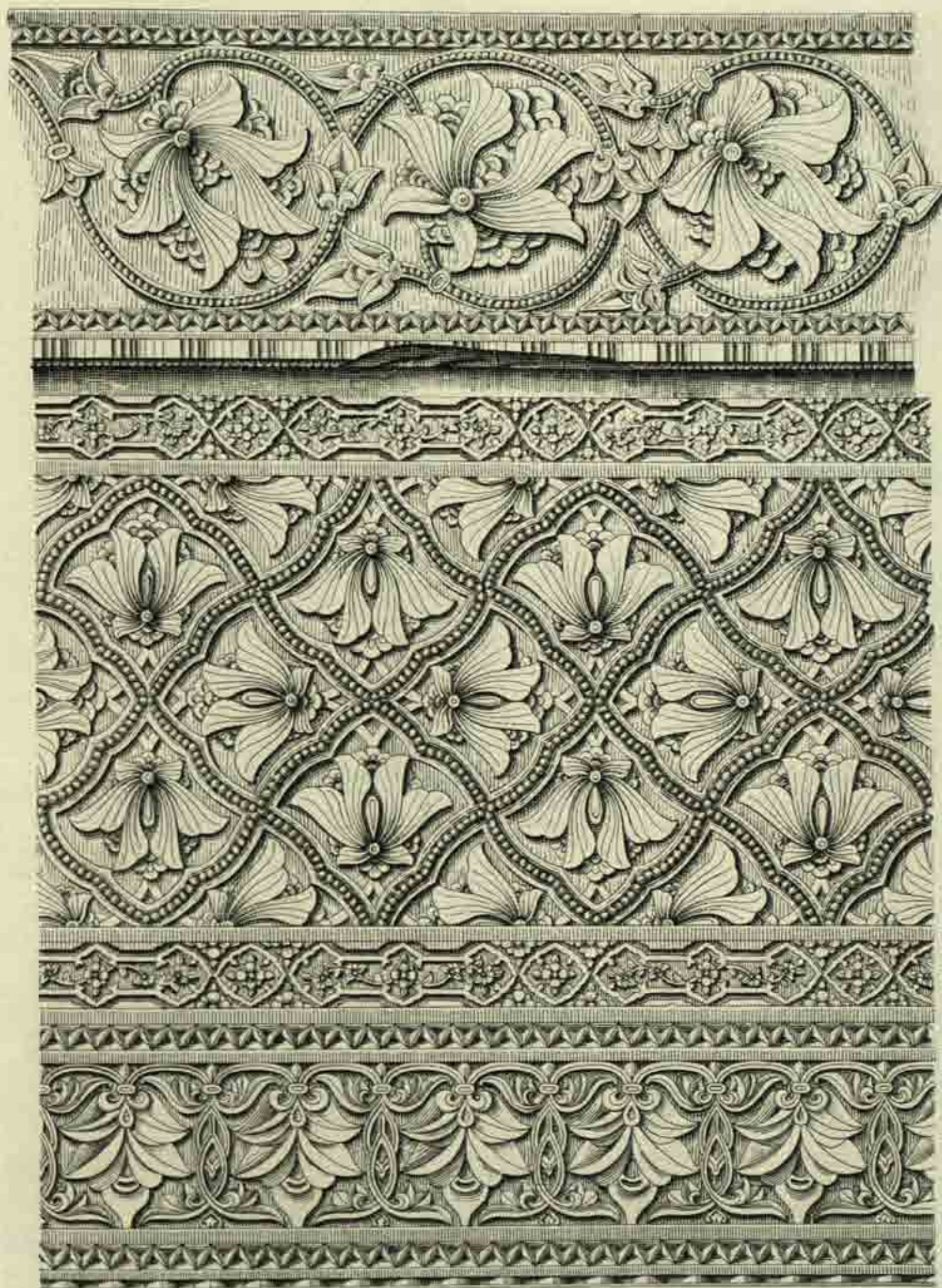
JALI WORK FROM THE TANK MACHAOLI FATEHPUR SIKRI

Edited by W. H. Smith, Architect, Bangalore



Survey of India Office, Calcutta, India, 1891.

Govt. ARCHAEOLOGICAL SURVEY: R. W. PHILLIPS & Co. No. 225.



SOFFIT OF DRIESTONE - SULTAN'S HOUSE, FATEHPUR SIKRI

Edmd. W. Smith, Archd. Surveyor



Geol. Archaeological Survey N.W. Provinces & Oudh No. 226-227

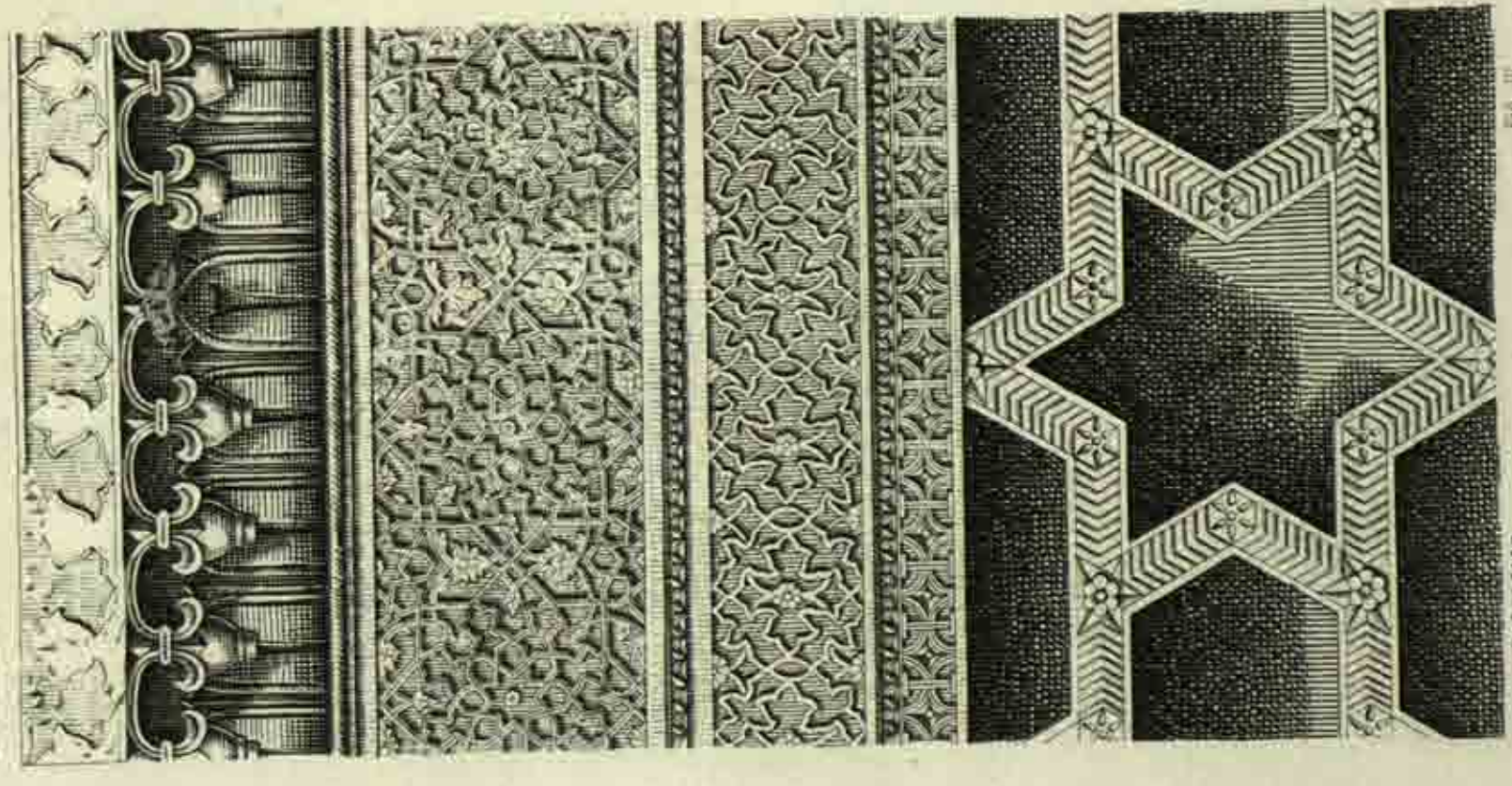
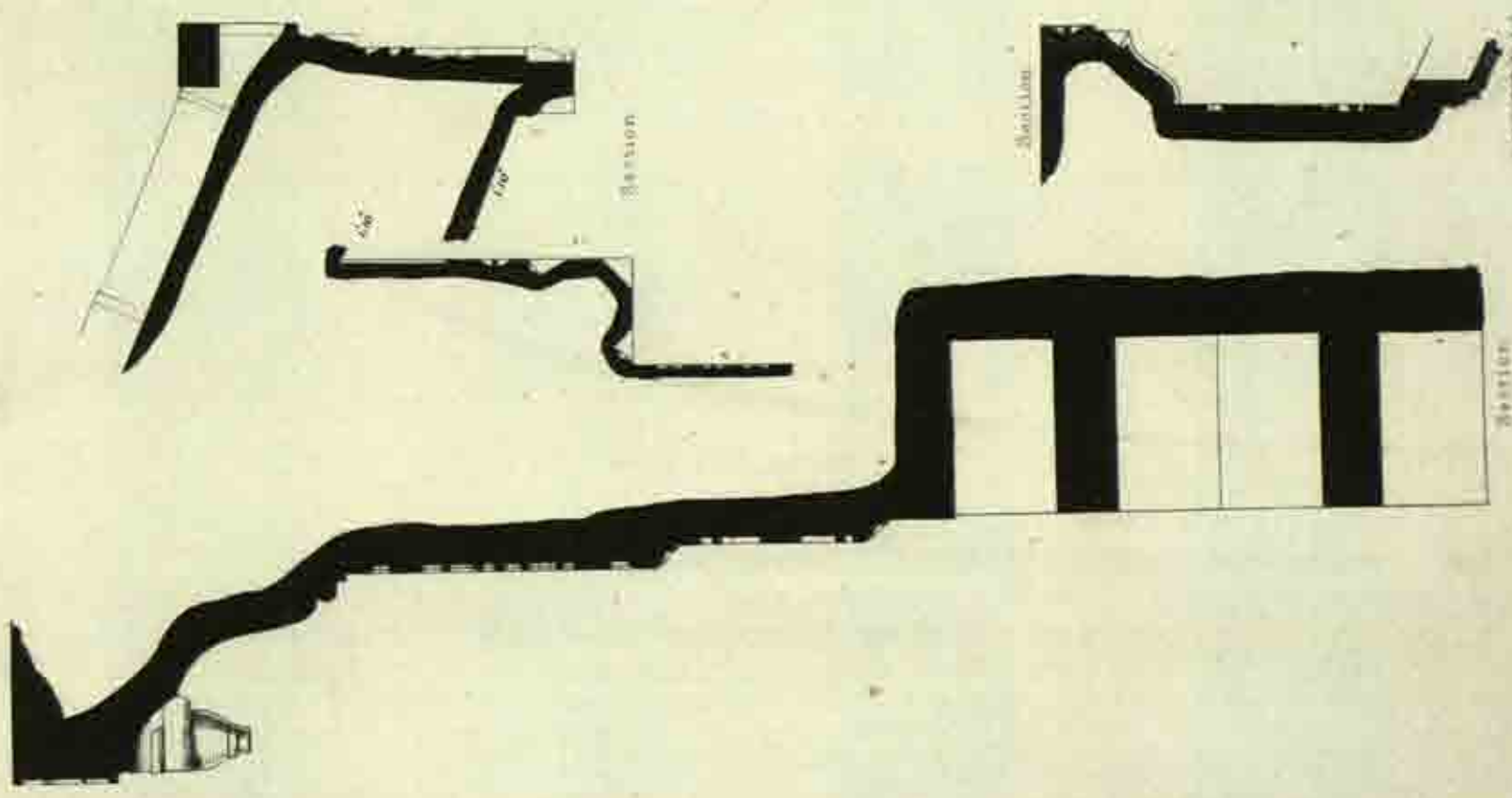


Fig. III

INTERNAL FRIEZE AND CORNICE-SULTAN'S HOUSE, FATEHPUR SIKRI.

Scale: 12" 10" 8" 6" 4" 2" 0"
Feet



Section

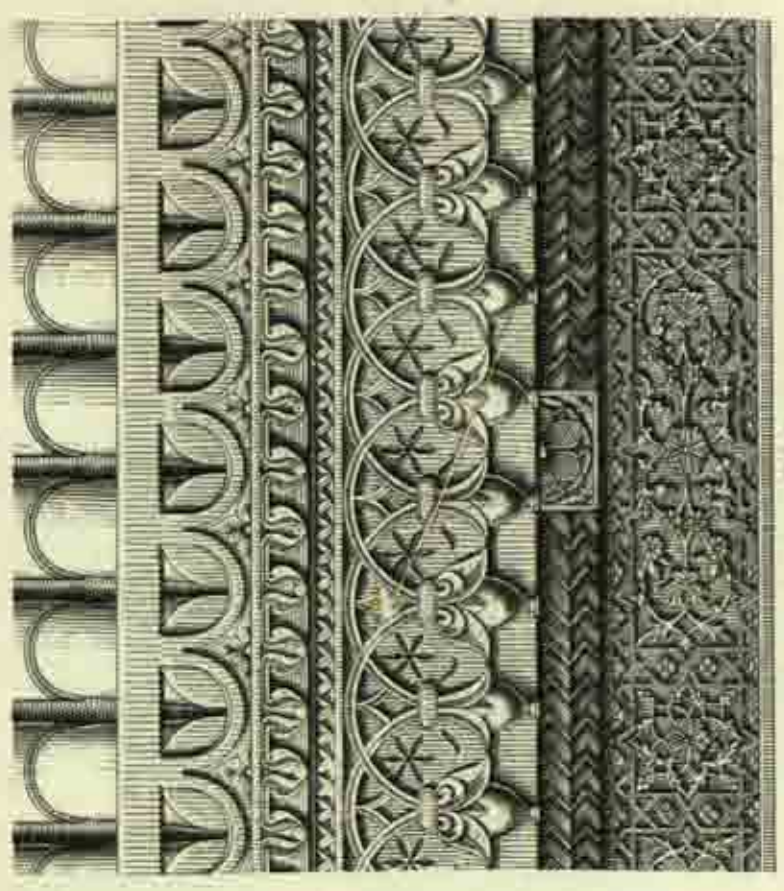


Fig. I



Fig. II

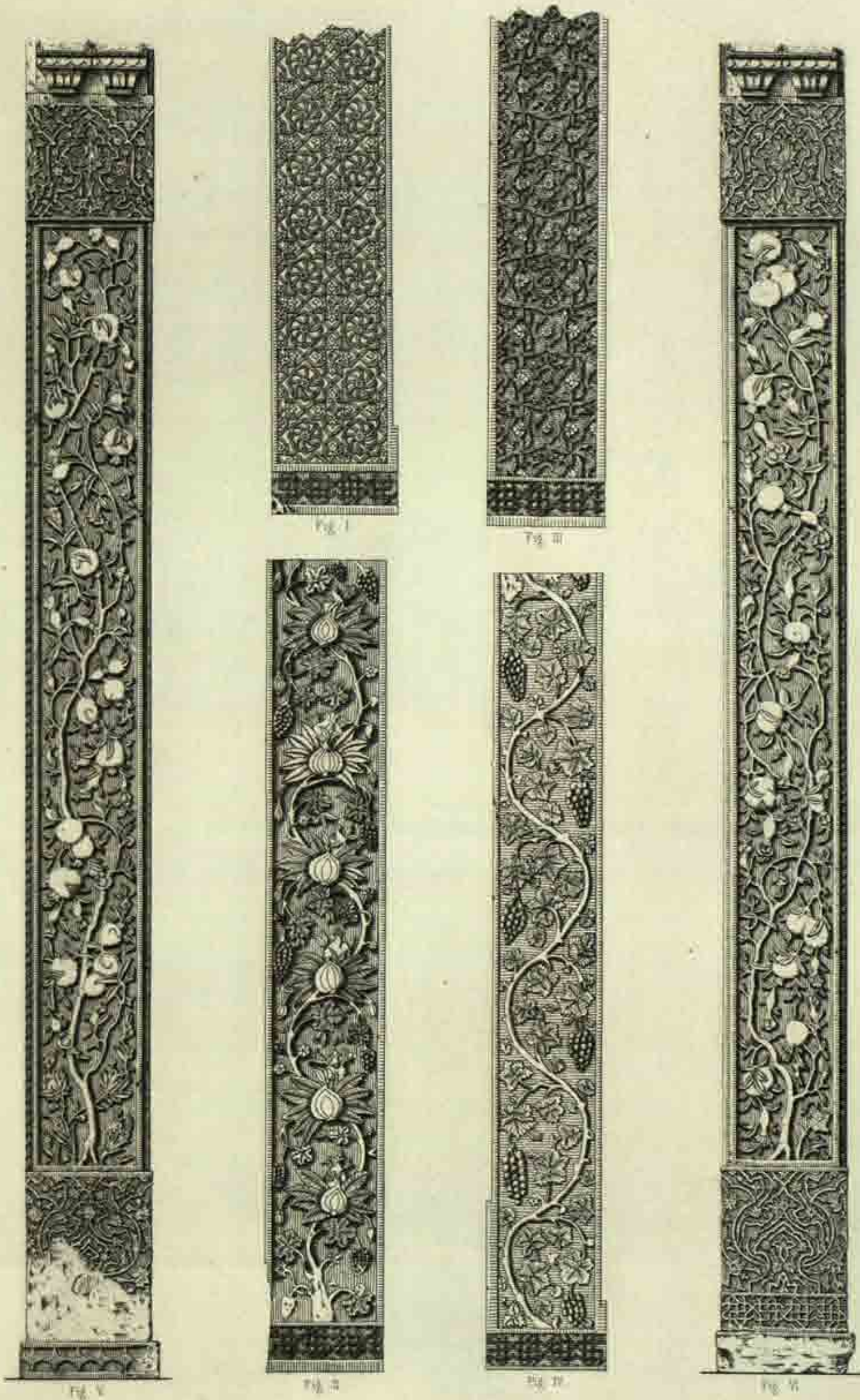
EXTERNAL CORNICES OF FACADE-SULTAN'S HOUSE, FATEHPUR SIKRI.

Scale: 12" 10" 8" 6" 4" 2" 0"
Feet

Admiral W. H. Smith, Architect, Survey

Survey of India, Calcutta, India

Govt. ARCHEOLOGICAL SURVEY N.W. PROVINCES & OUDH. Nos 228-229

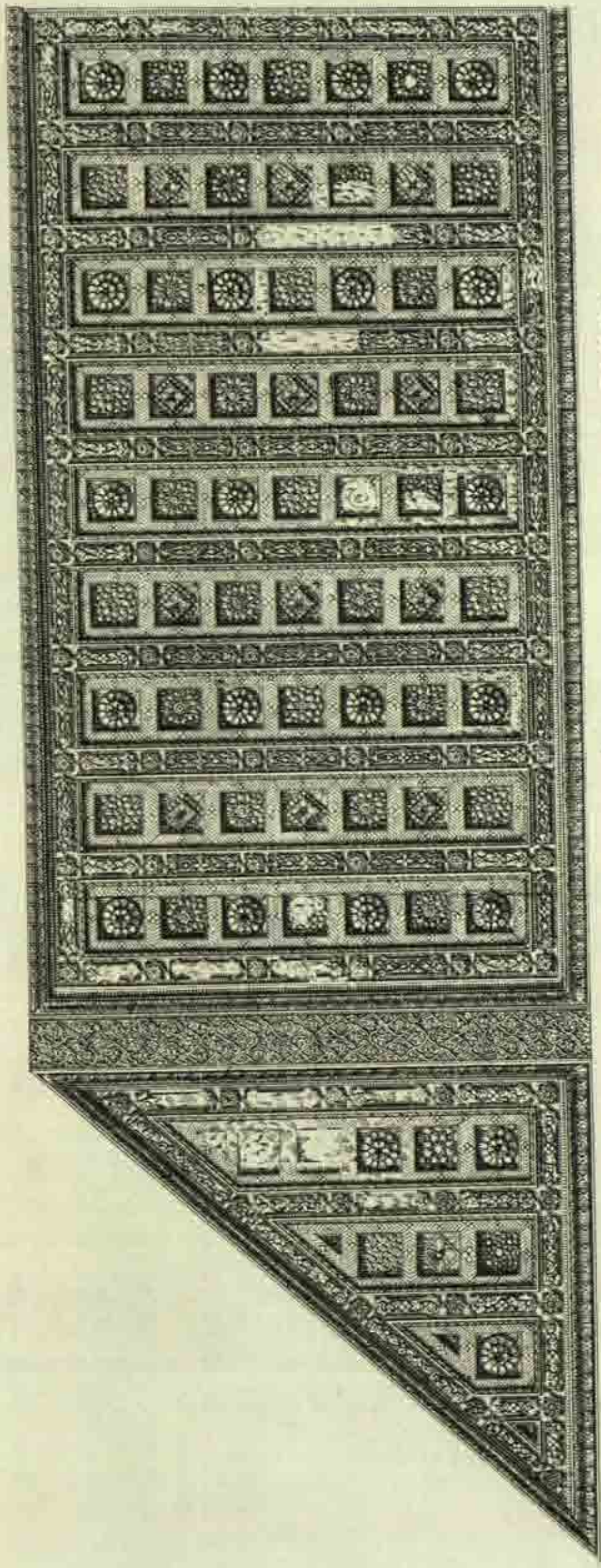


ORNAMENT FROM THE SULTAN'S HOUSE, FATEHPUR SIKRI

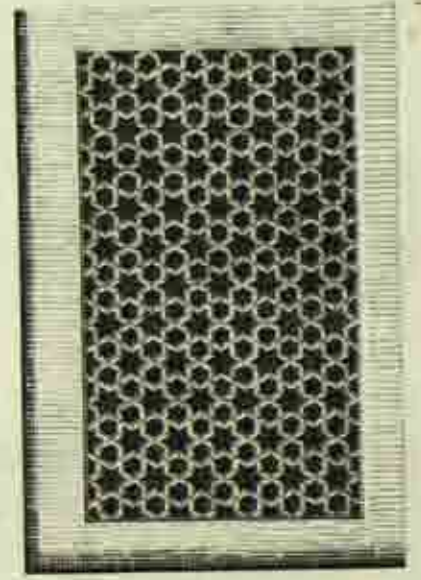
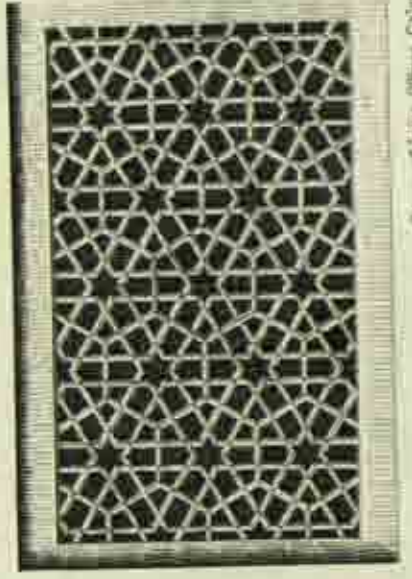
1/4 1/2 3/4 1 1 1/2 2 2 1/2 3 3 1/2 4 4 1/2 5 5 1/2 6 6 1/2 7 7 1/2 8 8 1/2 9 9 1/2 10 Feet.

Edwin Smith, Archt. Surveyor

Survey of India Office, Calcutta, July 1888

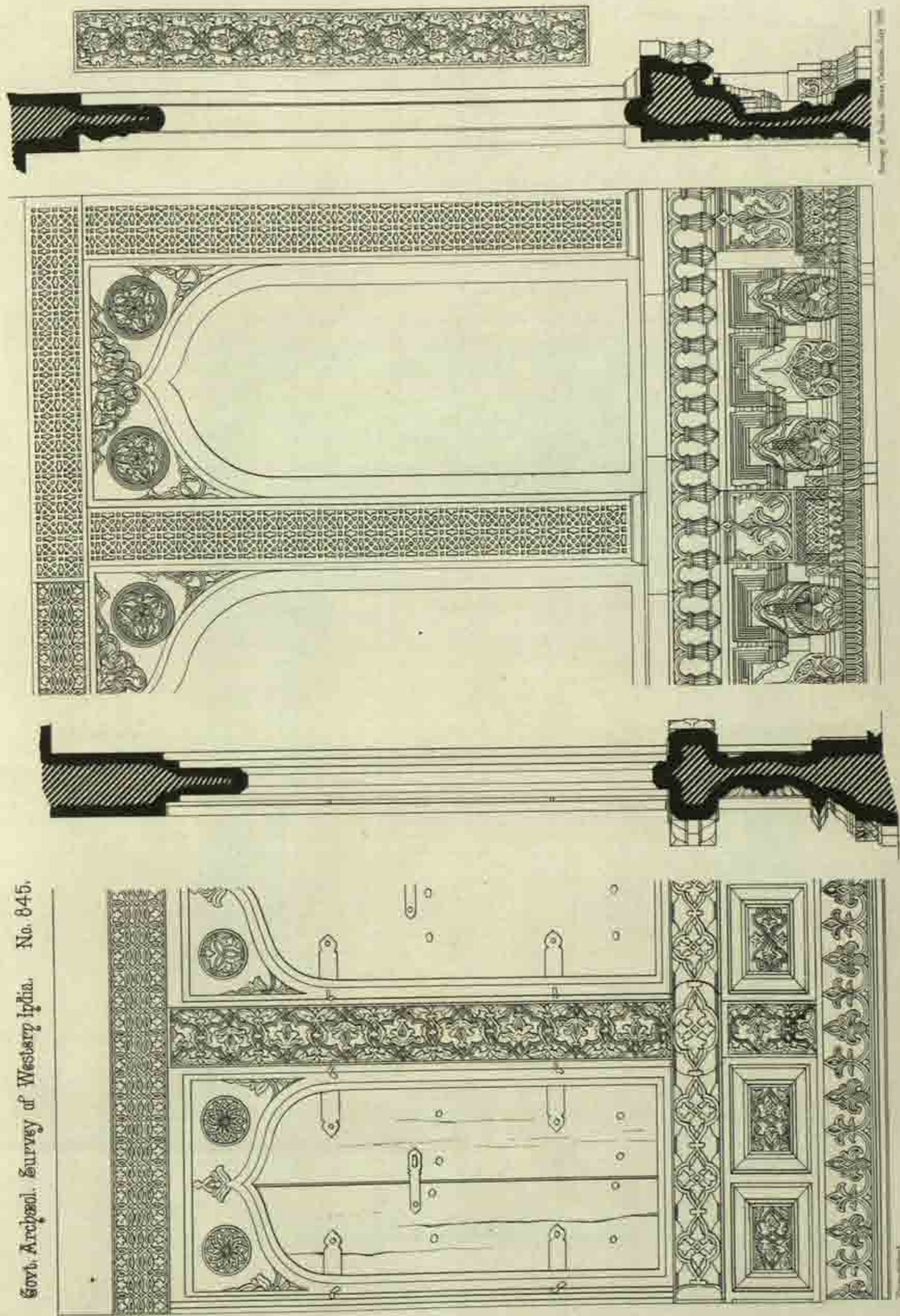


VIRANDAH CEILING - SULTAN'S HOUSE, FATHPUR SIKRI



JALI WORK FROM THE "ANK MAHAOLI, FATHPUR SIKRI





SCALE OF FEET 0 1 2 3 4 5

WALL SURFACE DECORATION IN THE TOMB OF SHAH KARIM AT BIJAPUR.

Govt. Archaeol. Survey of Western India.
No. 796.

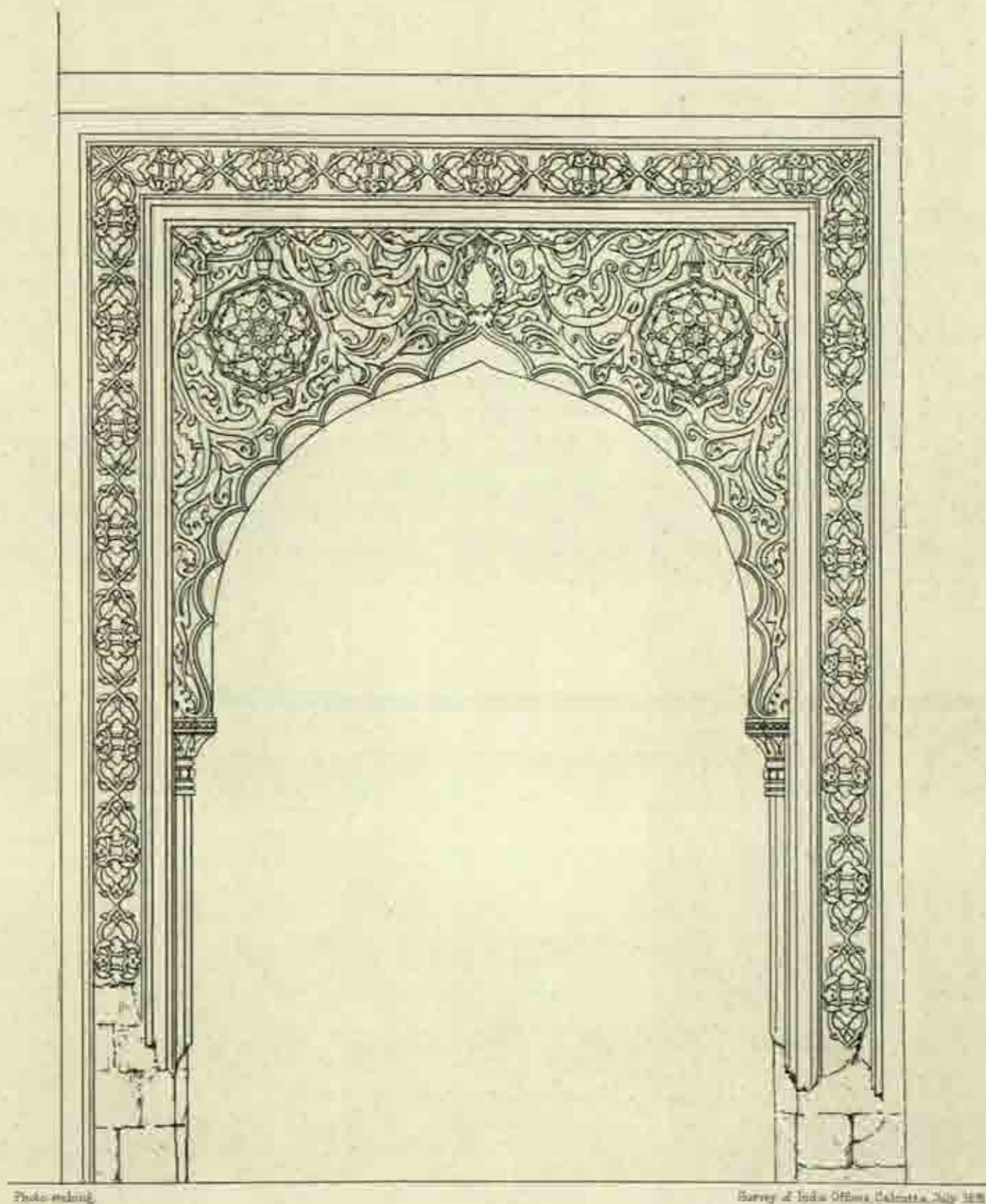


Photo-etching.

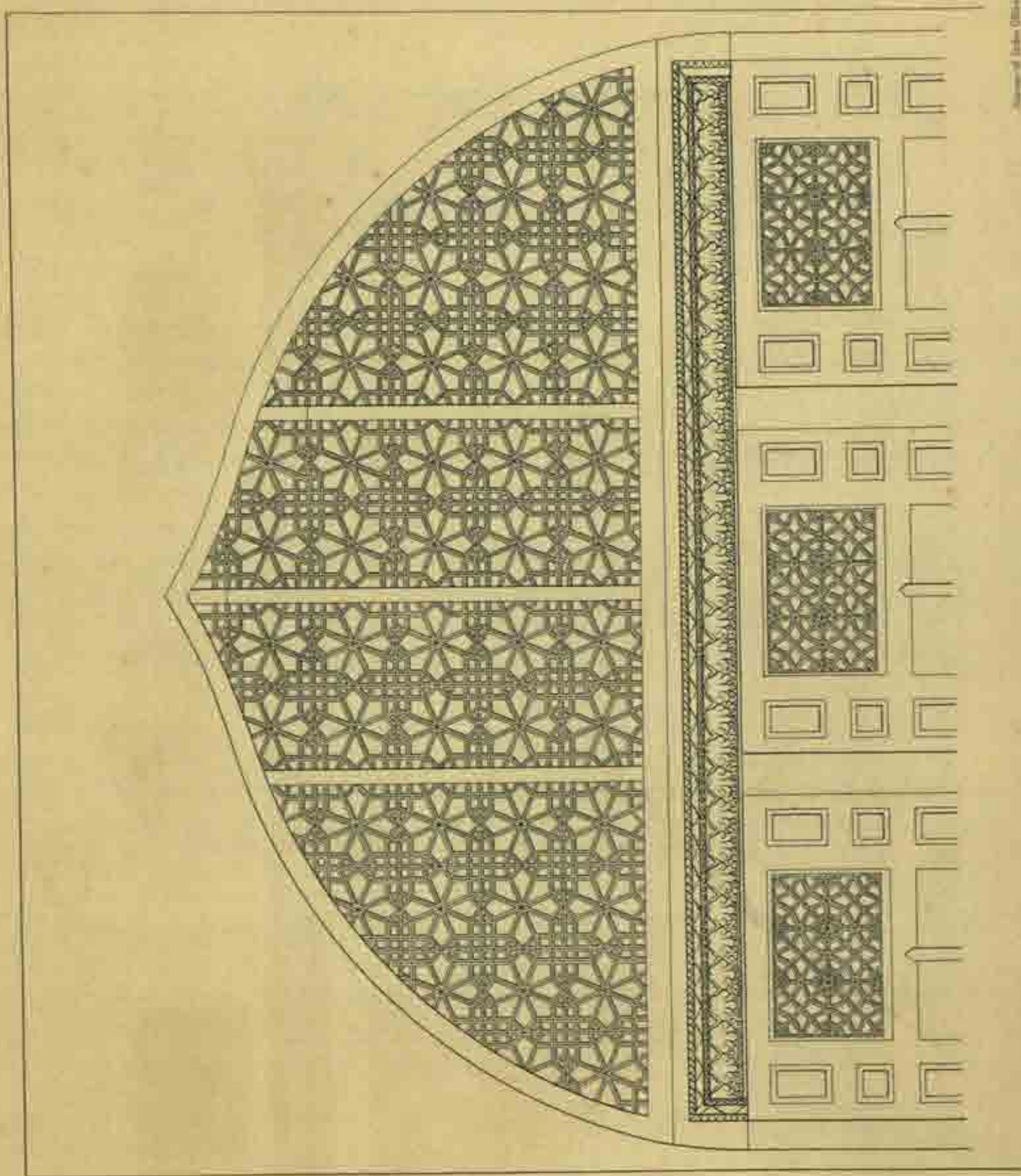
Survey of India Office, Calcutta, July 1881

SCALE OF 12' 1 2 3 4 5 6 FEET

FACADE ARCH IN THE GHOSIA ASAR MOSQUE AT BIJAPUR.

Govt. Archaeol. Survey of Western India.

No. 763.



SCALE OF 12" = 1' 2" 3" 4" 5 FEET.

WOODWORK WINDOW IN THE KEES MAHAL AT BIJAPUR.

PLATES I TO V.
PERFORATED AND STUCCO PARAPETS FROM
BIJAPUR.

ONE of the most ornamental features of the Muhammadan buildings at Bijapur is the parapet, which, in its plainest garb, is a kind of battlementing made up of *Kanguras* (merlons). These *Kanguras* are generally straight-sided, with arched or pointed tops. Then they become more ornamental, and each takes more the shape of a leaf with curved outline, broad in the middle, but narrowing between that and where it joins the wall, somewhat similar to those shewn in the top figure on Plate I, though not quite so attenuated. When applied as an ornamental finish to the top of a building, they became much more elaborate and intricate in design and formed a kind of lace-like fringe, which gives an excellent finish to the otherwise straight-lined edge of the building.

In the better buildings they are of stone, in thin slabs set up on edge, and prettily perforated; the thickness of the slabs averaging four or five inches. In other buildings, which are built of rubble or brick and plastered, the *Kanguras* are constructed in raised plaster upon a flat surface, the material not admitting of much, if any, delicate perforation in positions exposed to the weather.

The variety of these patterns, which are more or less geometric in outline, and into whose designs those beautiful curves so dear to the heart of the Musalman artist are plentifully introduced, are practically endless. In these buildings they take the place of what is often seen in European buildings, viz., a parapet of balusters along the top of the façade. Sometimes the one pattern is carried right round the four sides of the building; oftener a much plainer and simpler parapet is used on the back and sides, the more elaborate design being reserved for the front.

The patterns given in Plates IV and V are from the sides of the little *Chhatris* upon the roof of the Gol Gumbaz, the tomb of Sultan Mahmud, where they are worked in plaster relief in bands around them. They are of the same kind of designs as the ornamental plaster *Kanguras* already mentioned.

H. COUSENS.

PLATE VII.
DETAIL OF STUCCO WORK IN WESTERN WALL,
MAKKA-KA- NAQAL, BUNNUR.

PLATE VII represents some very pretty and interesting ornament in stucco from the interior walls of the small masjid of Makka-ka-Naqal at Bunnur in the Patiala State in the Punjab.

Fig. 1 is a sample of the niches in and around the walls, which for the effect of light and shade have been amply recessed by a series of small receding plain architraves on each side of the opening. The back is arched over by a very debased form of arch. Surrounding the niche is a border enriched by a chain scroll and strap ornament, whilst the top is embattled and ornamented with carving.

Fig. 2 illustrates the parapet wall around the quadrangle. It is crested in the form of a moulded trefoil zig-zag, each division being curiously carved with a conventional leaf scroll border around a narrow irregular elongated panel ornamented with a carved annulet and strap work.

Fig. 3 is a string course below the parapet. Along the top is a scroll connected by a narrow fillet terminating in a pendant drop and dividing the face of the string into a series of small spaces the faces of which are ornamented with raised strap carving.

The style of the work and the ornament is closely allied to that found on the Chaurasi Gumbaz at Kalpi in the Jalaun District of the North-Western Provinces, ascribed to the Sikandar Lodi period, which was illustrated in last year's *Technical Art Series*.

E. W. SMITH.

PLATES VIII & IX.

ROOF OF PATHARIYA MASJID, THĀNESAR.

Both these plates are from the roof of the Pathariya Masjid, or "stone mosque," at Thānesar in the Ambāla District of the Punjab, and about 29 miles from that city.

The town of Thānesar is a most sacred one and a famous place of Hindu pilgrimage, and is mentioned by Hiuen Tsiang in his travels through India during the 7th century. The masjid is within the old fort and near Shaikh Chilli's tomb. It is a small building, some 36 feet in length by 9' 11" in width. The ceiling covers this area, and is supported by lintels, upheld by bracketed capitals and shafts, the positions of which are indicated on the drawings. The central portion is divided into six main bays, whilst at each end is an oblong panel, some 4' 7" in width and extending the entire width of the building. These latter are divided into twenty-one small square panels, the whole surface being enclosed by a star-moulded border. In each panel is a rich patera.

Of the main panels three are broader than the others, the discrepancy being accounted for by the disposition of the columns below, but in length, though, they assimilate.

Each panel is sub-divided by smaller ones surrounding a large and elaborate patera occupying a central position. Each panel is enclosed by a border of floriated carving, whilst the field of each is richly embellished with intricate carving.

The roof is of extreme beauty, and closely resembles those in Bir Bal's House at Fathpur Sikri. Indeed, some of the designs employed are identical, and, like those, it is wrought in red sandstone. The building has been assigned to the end of the 14th century, but the ceiling may have been an addition.

E. W. SMITH.

PLATE X.
TRELLISED WINDOWS, TOMB OF SHAIKH CHILLI,
THÂNESAR.

Like Plate IX this illustration is taken from Thânesar, but in this case from the tomb of Shaikh Chilli, a small octagonal building of white marble, surmounted by a fine dome of the same material.

The windows, like those surrounding Saint Salim Chishti's tomb at Fathpur Sikri, are carved out of solid blocks of white marble, the spaces between the trellising extending the entire thickness of the slab. The centre pier is of a flowered pattern, enclosed by a plain flat border, surrounded by an elaborate panel, carved with a floral design, set in a plain architrave.

From the style of trellising and the dome surmounting the tomb, which is pear-shaped, this building may have been built about 1650 A. D.

E. W. SMITH.

PLATE XI.
GATEWAY NEAR QÂZÎ'S MASJID, SÂDHAURA.

Sâdhaura is an old town, once the head-quarters of a large district, situated some 24 miles to the east of Ambâla in the Punjab. Amongst other remains are two gateways, one of which we now illustrate.

The entrance is arched, and the spandrils over it filled in with a rich and intricate design moresque in feeling, whilst the front faces of the abutments on each side are cut up by five oblong panels, the horizontal space over the vertex of the arch being divided into seven smaller but similar ones.

The gate is built of brick, stuccoed over, and the spandrils of the arches and the panels are ornamented with glazed tiles of geometrical design, in blue, yellow, and green.

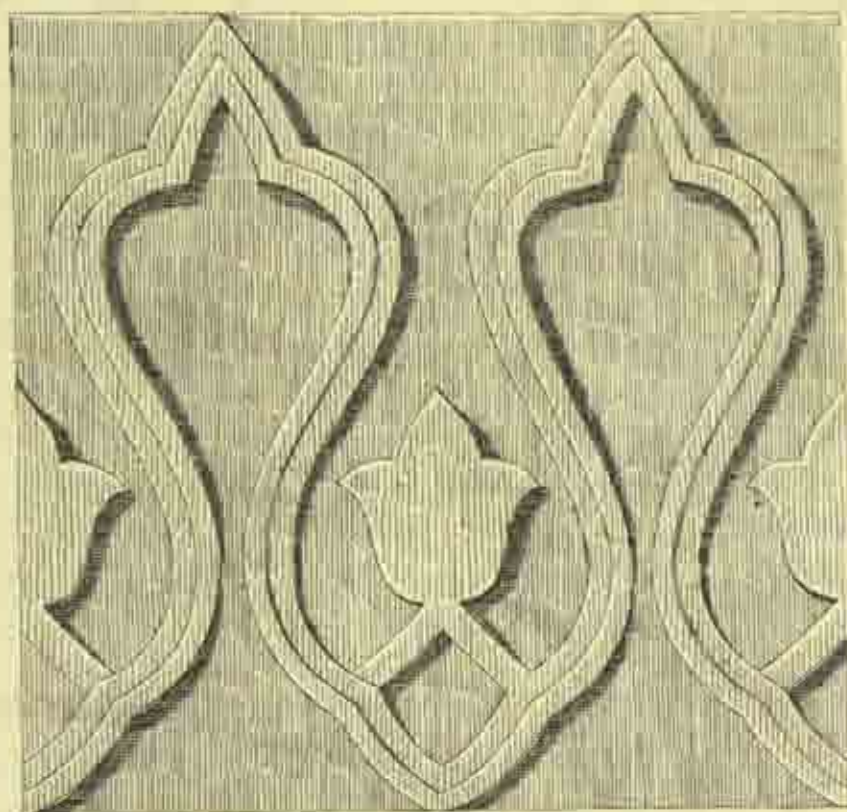
E. W. SMITH.

PLATE XI

GATEWAY NEAR QANT'S MASHI RABDHARNA

Stippling in the old work, near the first gateway, is a large figure, seated, with its arms raised, in the air, in the form of a 'V'. It is the same as the one in the first gateway, but it is larger and more distinct. The gateway is a simple structure, with a flat roof, and is flanked by two pillars. The gateway is the entrance to the temple, and is the most important part of the building. The gateway is the entrance to the temple, and is the most important part of the building. The gateway is the entrance to the temple, and is the most important part of the building.

A. W. SMITH



Notes by H. E. Chubb, Wash. Gov. School 10 am, February.



Fig. I

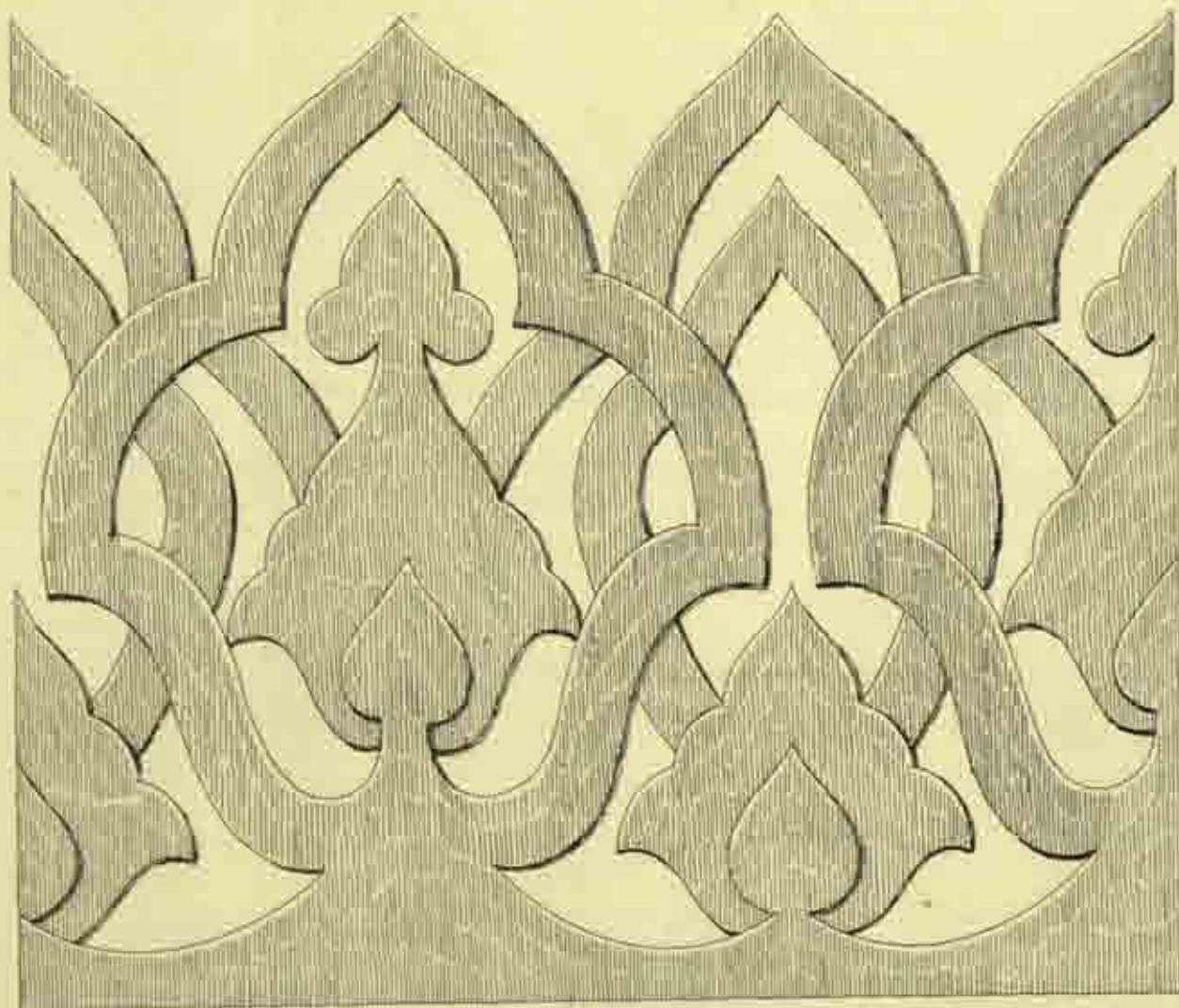


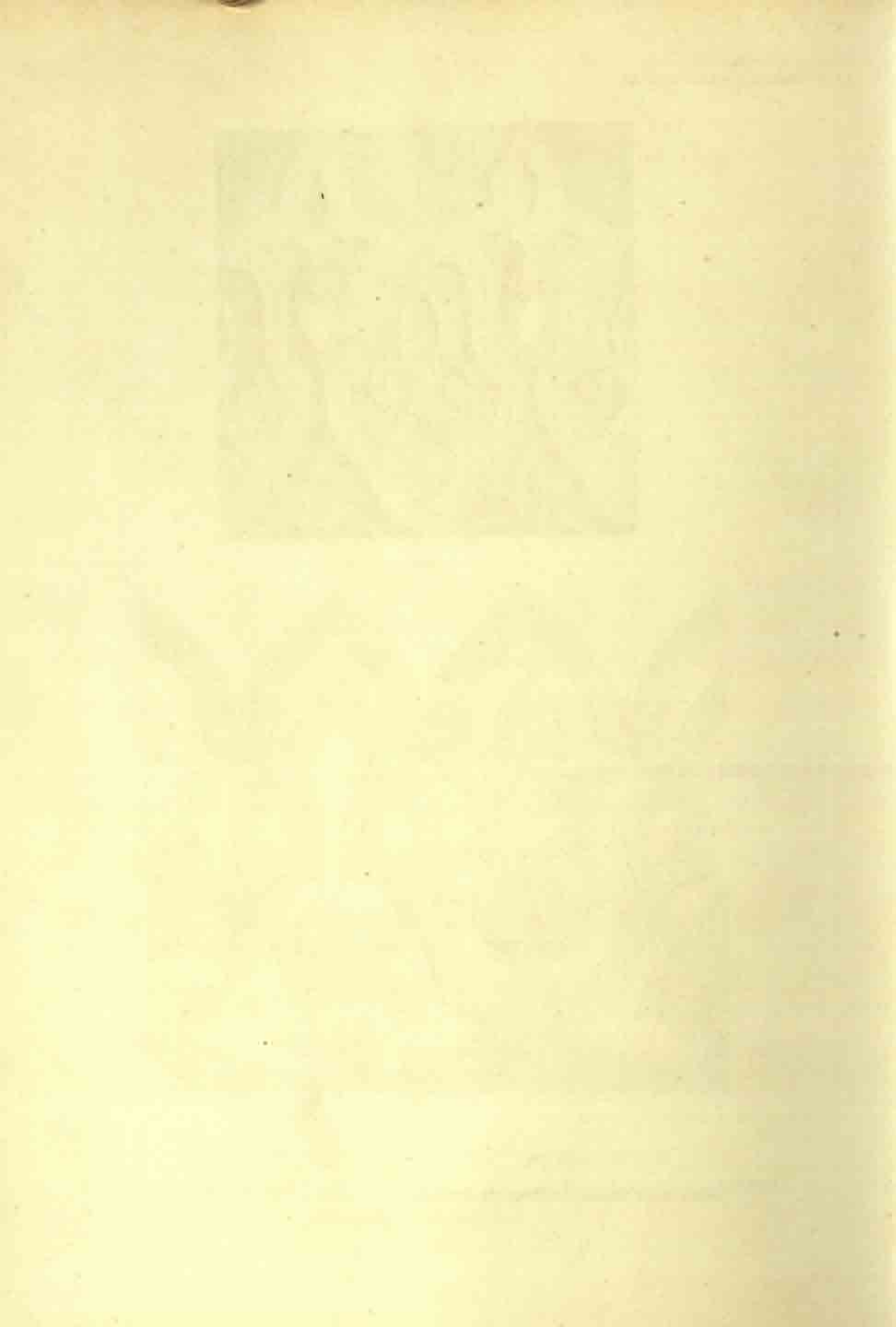
Fig. II

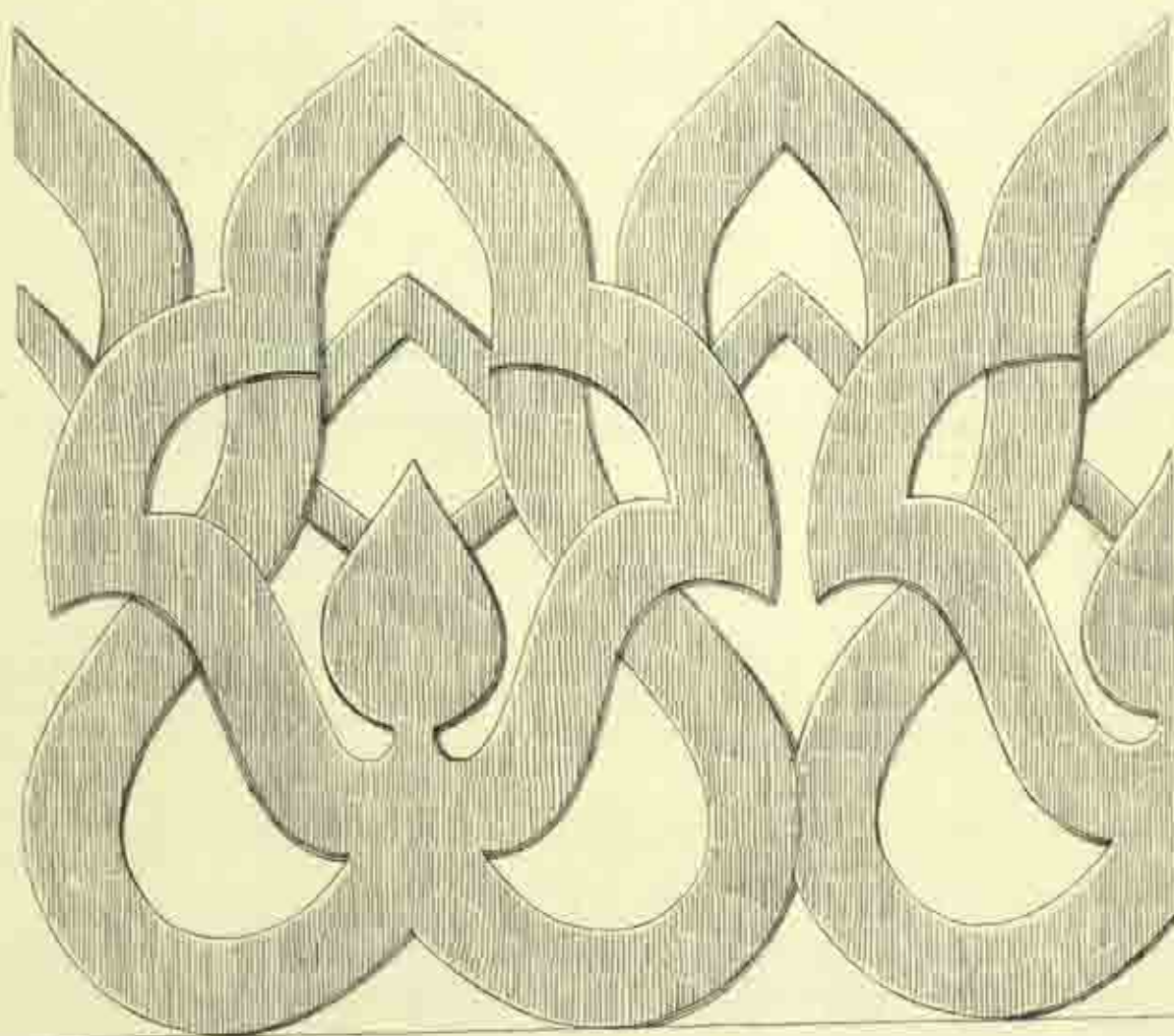
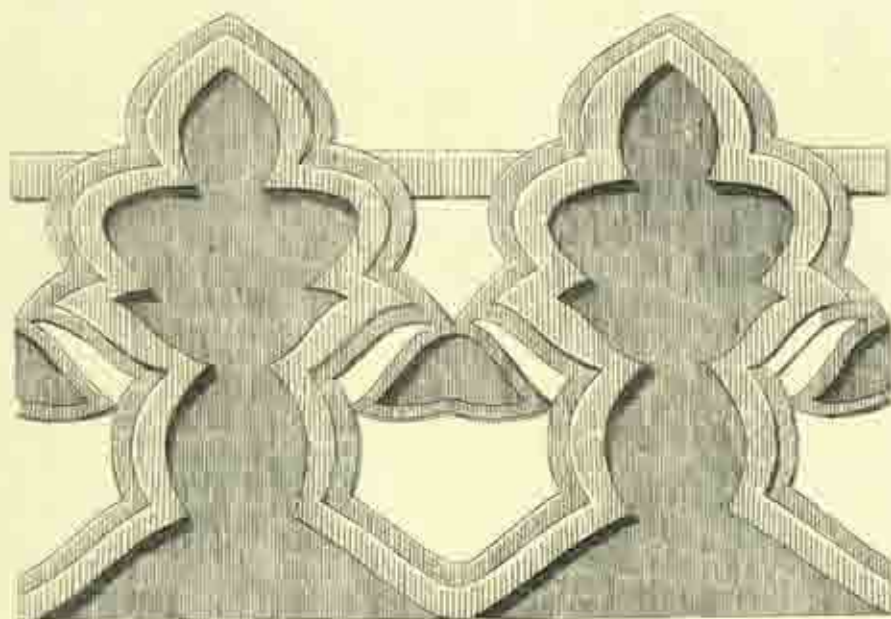
PERFORATED AND STUCCO PARAPETS FROM VARIOUS BUILDINGS AT RAJAPUR.

SCALE OF 12

3 FEET

Drawn by H.K. Choudhury, South West School of Art, Calcutta.

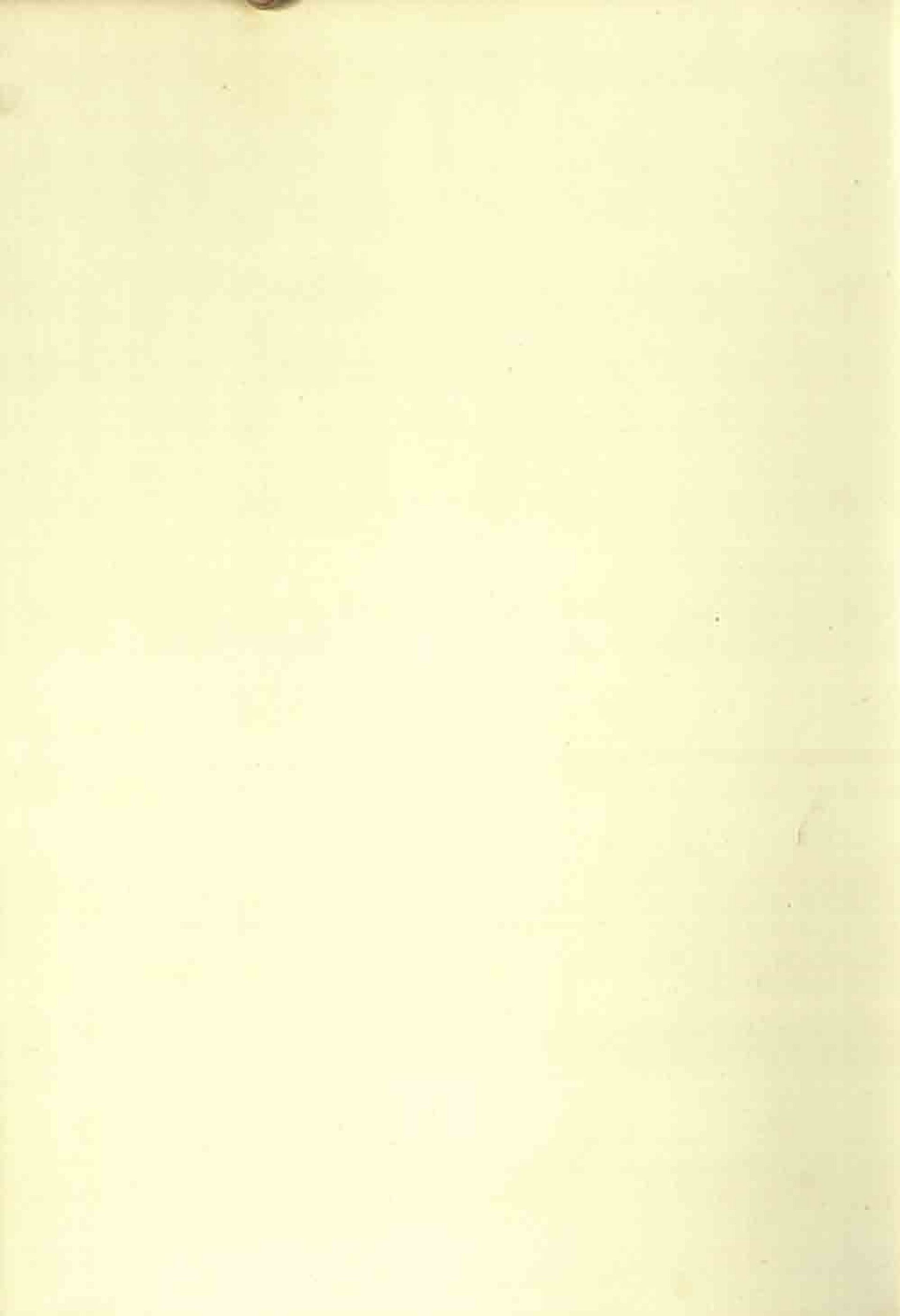


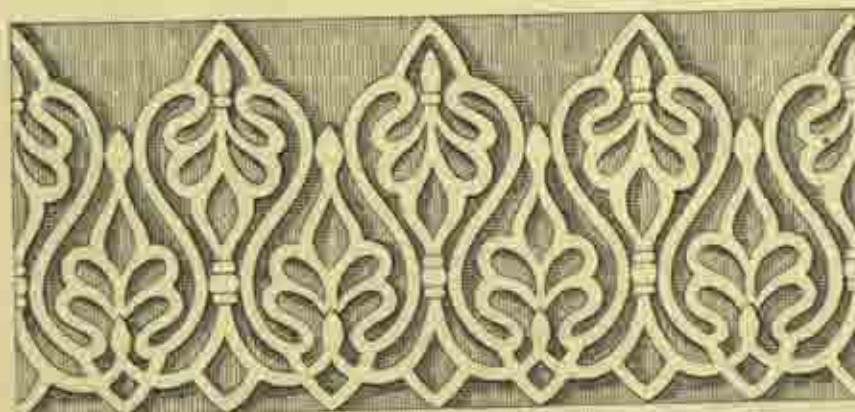
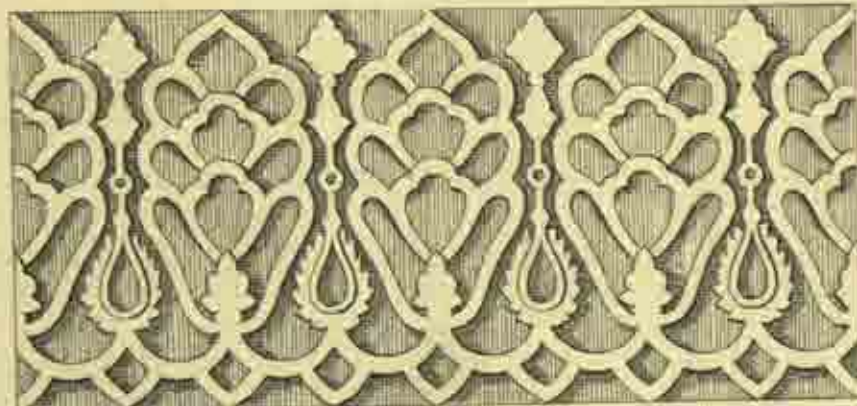
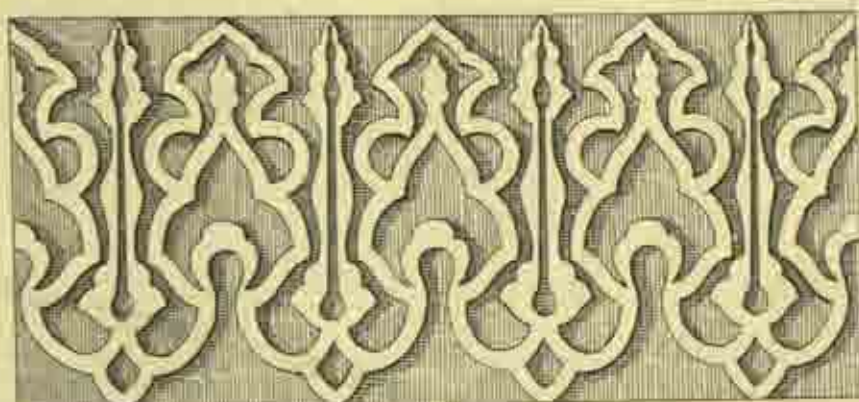
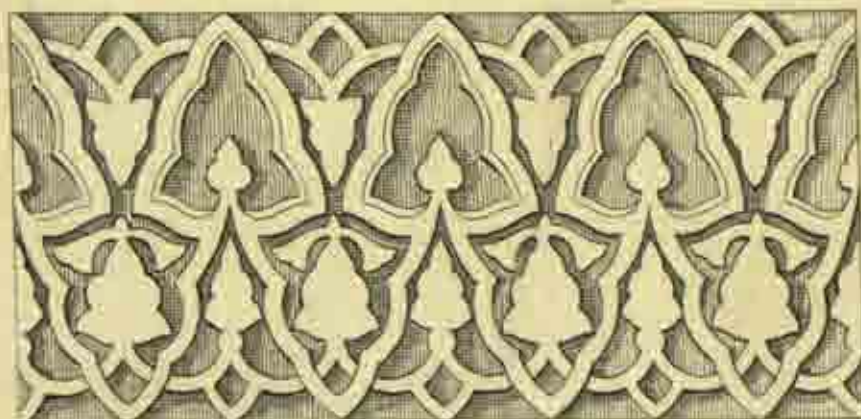


PERFORATED AND STUCCO PARAPETS FROM VARIOUS BUILDINGS AT BIJAPUR.

SCALE OF 12 1 2 3 FEET

DESIGNED BY E. E. THORNTON, ARCHT. DEPT. SCHOOL OF ART, CALIFORNIA.



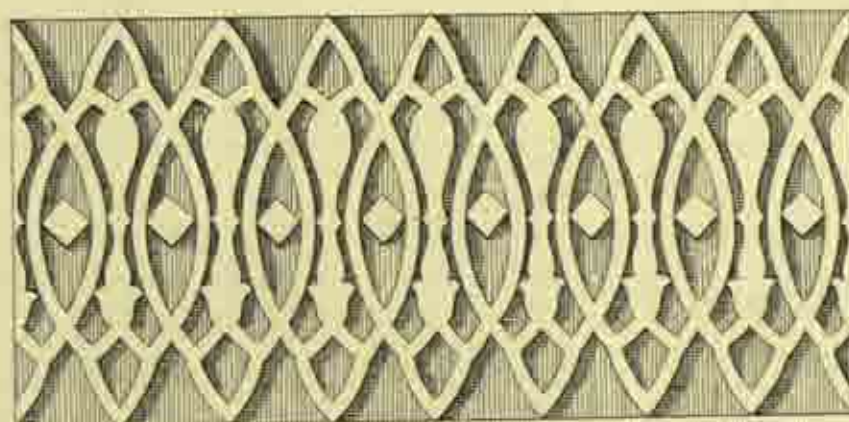
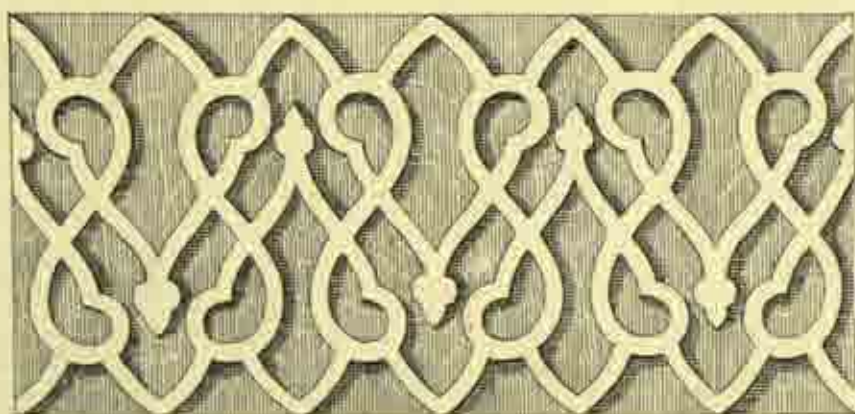
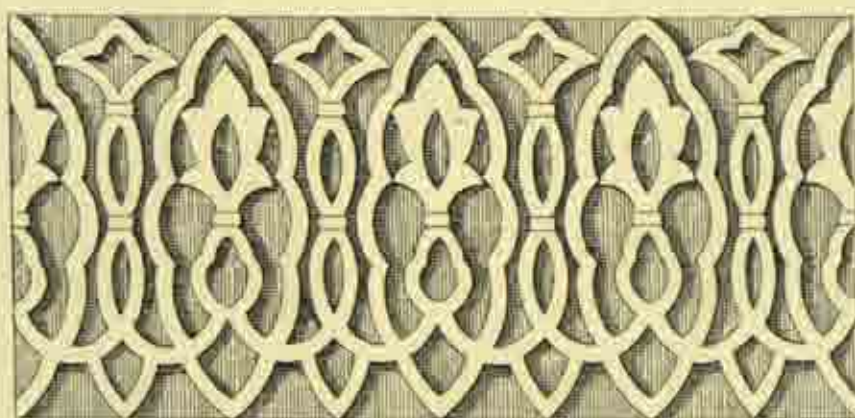


RAISED STUCCO PATTERNS FROM THE GOL GUMBAZ, BILAPUR.

SCALE OF IN.



Drawn by E. C. Mansel-Pleydell, from a photo of the original.



RAISED STUCCO PATTERNS FROM THE GOL. GUMBAZ, BIJAPUR.

SCALE OF 12 0 1 2 FEET

Drawn by E. C. Wadsworth, Master, Govt. School of Art, Calcutta.



SYMBOLS ON THE BASES OF SMALL COLUMNS FROM AN ANCIENT JAINA TEMPLE AT MATHURA

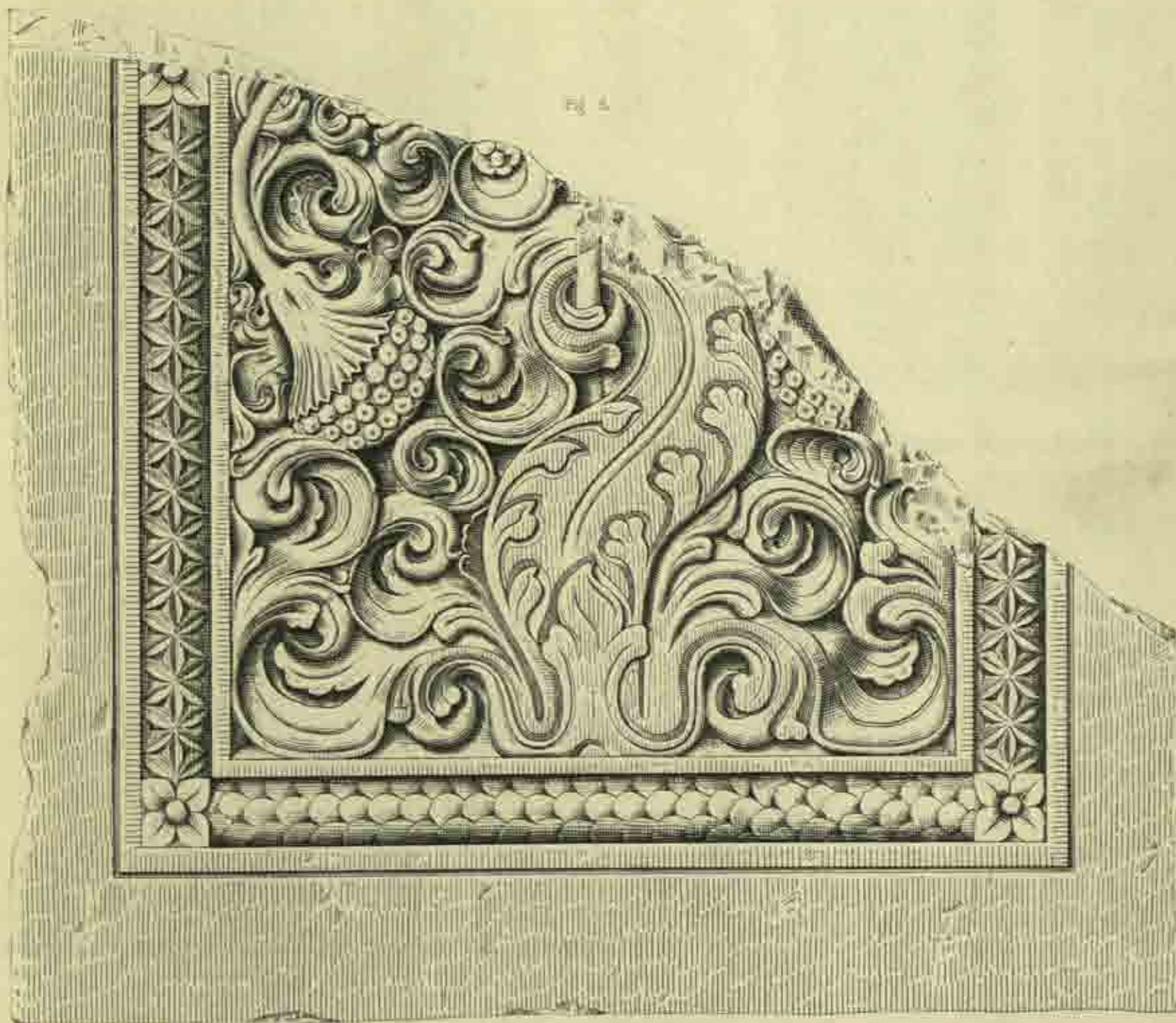


Fig. 4



BROKEN PANEL FROM AN ANCIENT JAINA TEMPLE AT MATHURA

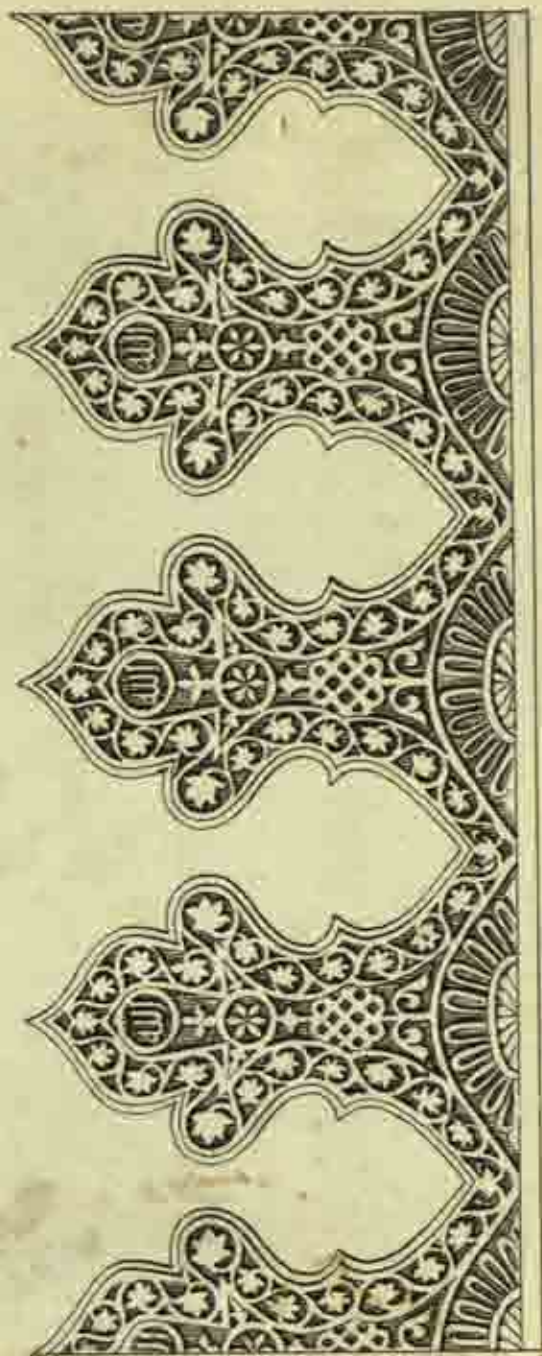


Fig. 2

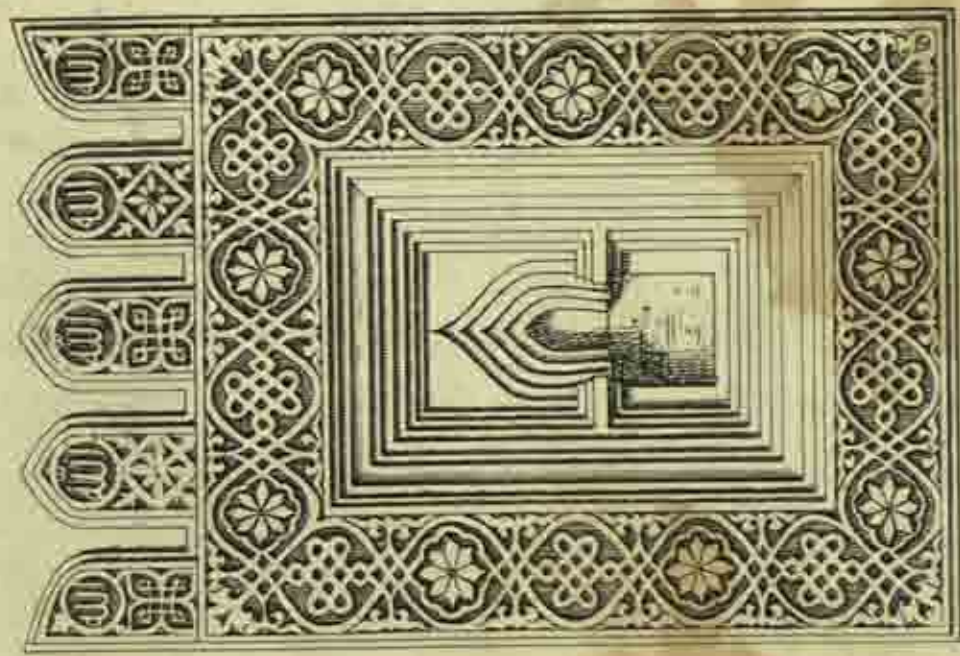


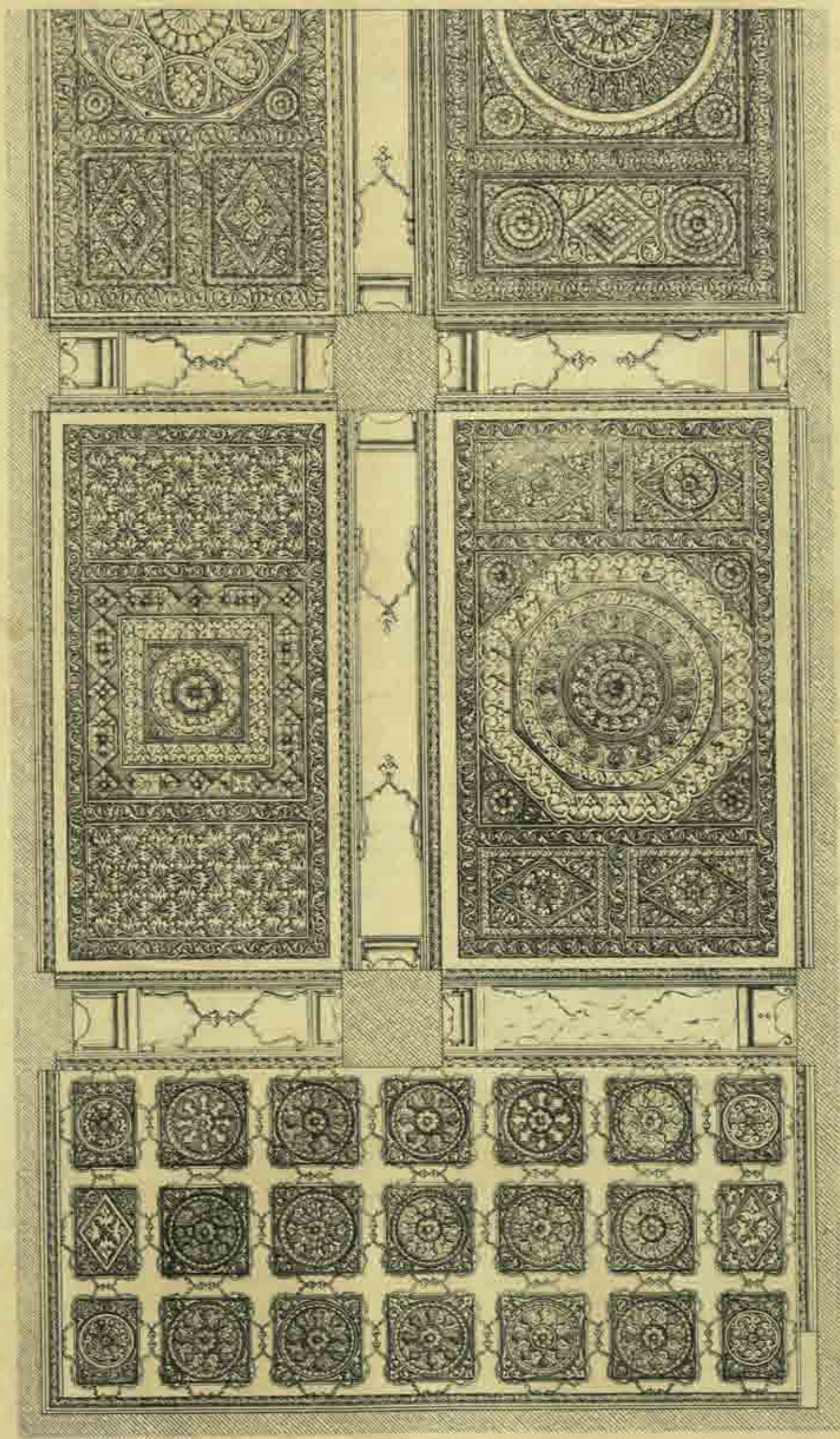
Fig. 1



Fig. 3



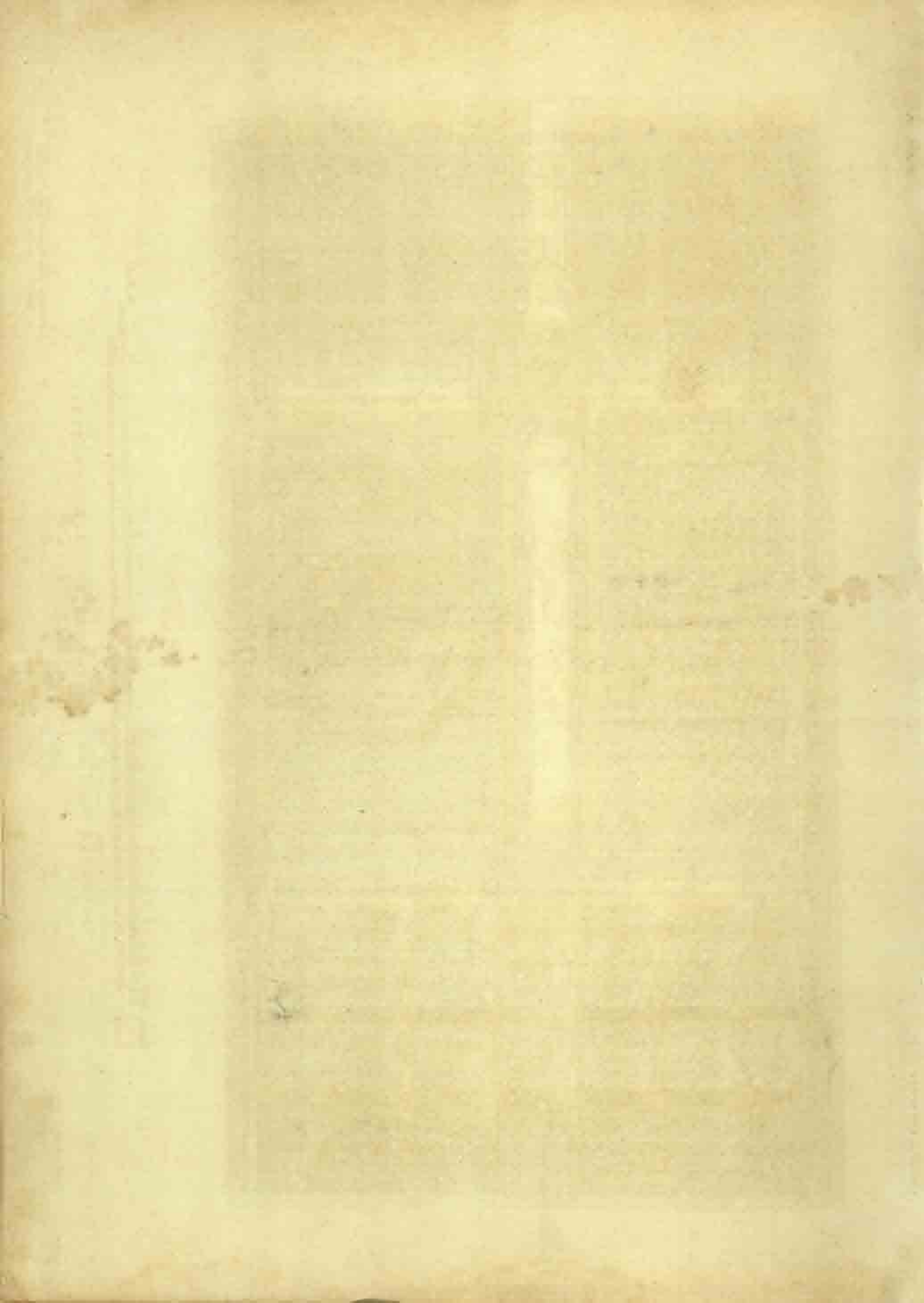
DETAILS OF STUCCO-WORK IN WESTERN WALL, MARKA KA NAOL, BUNNUR.

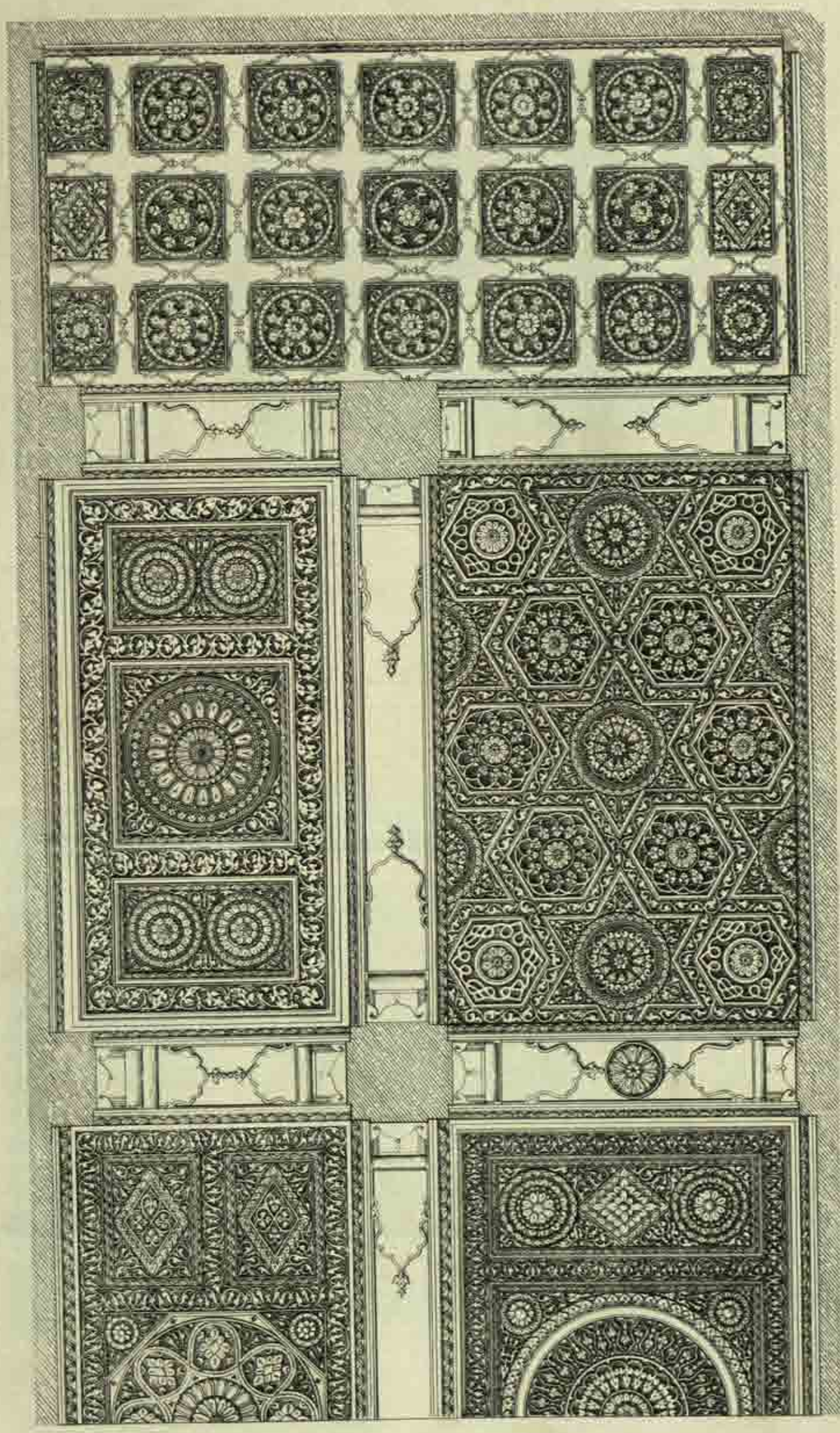


Scale



SOUTHERN HALL OF HOUT PATRANIA MAJID, THERAN





Scale.



NORTHERN HALF OF ROOF, PATHARIYA MASJID, THANESAR.

Photo-etching

Survey of India Office, Calcutta, Jan. 1902.

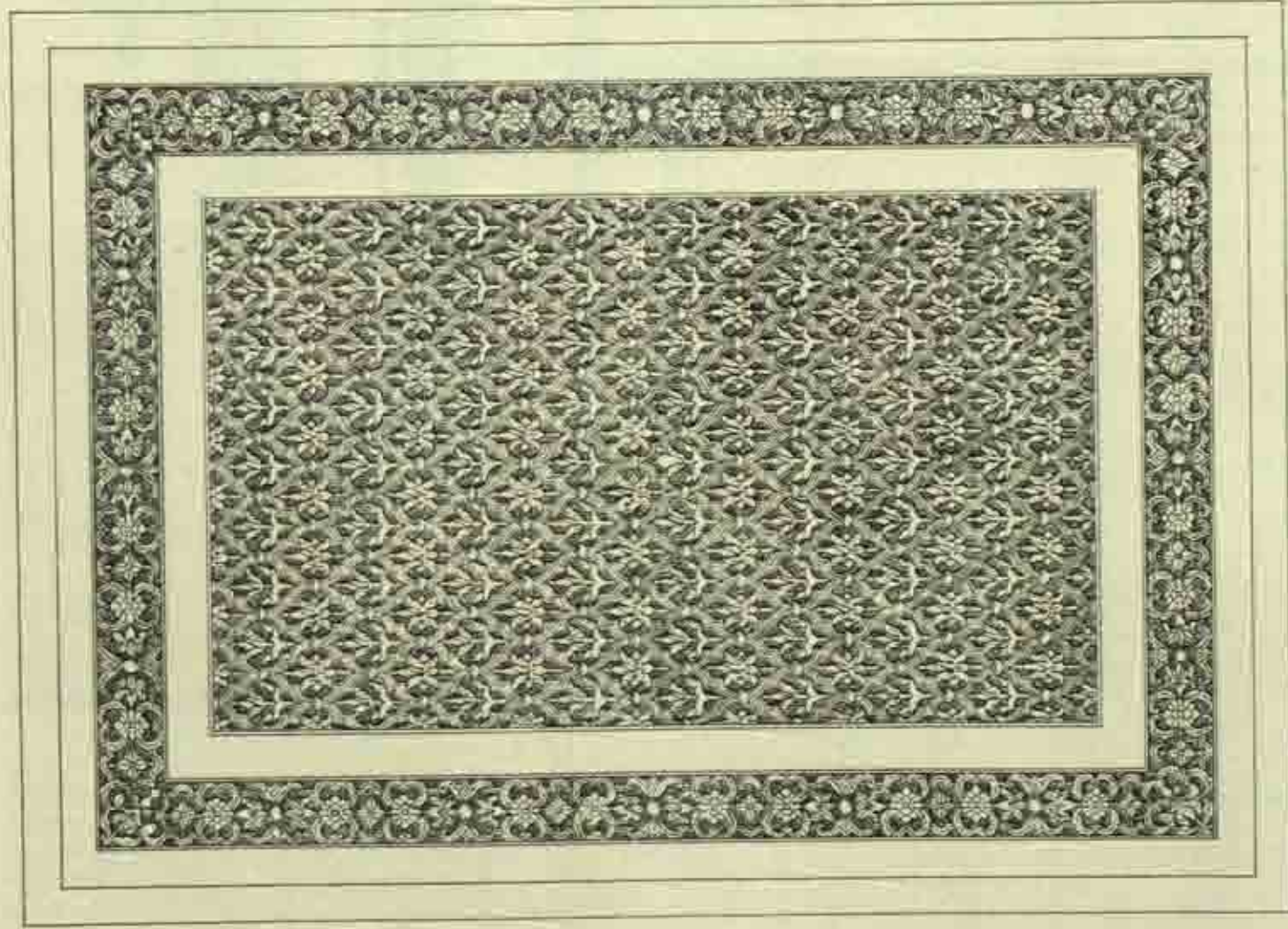


Fig. 1

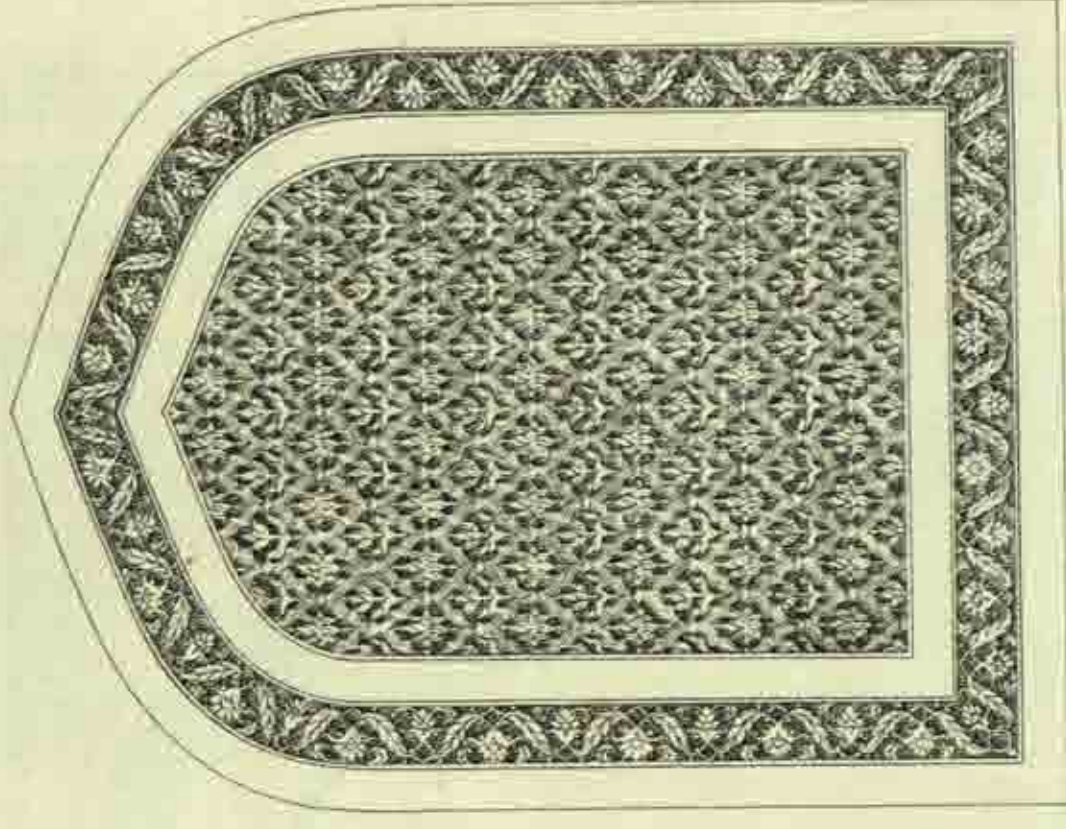


Fig. 2

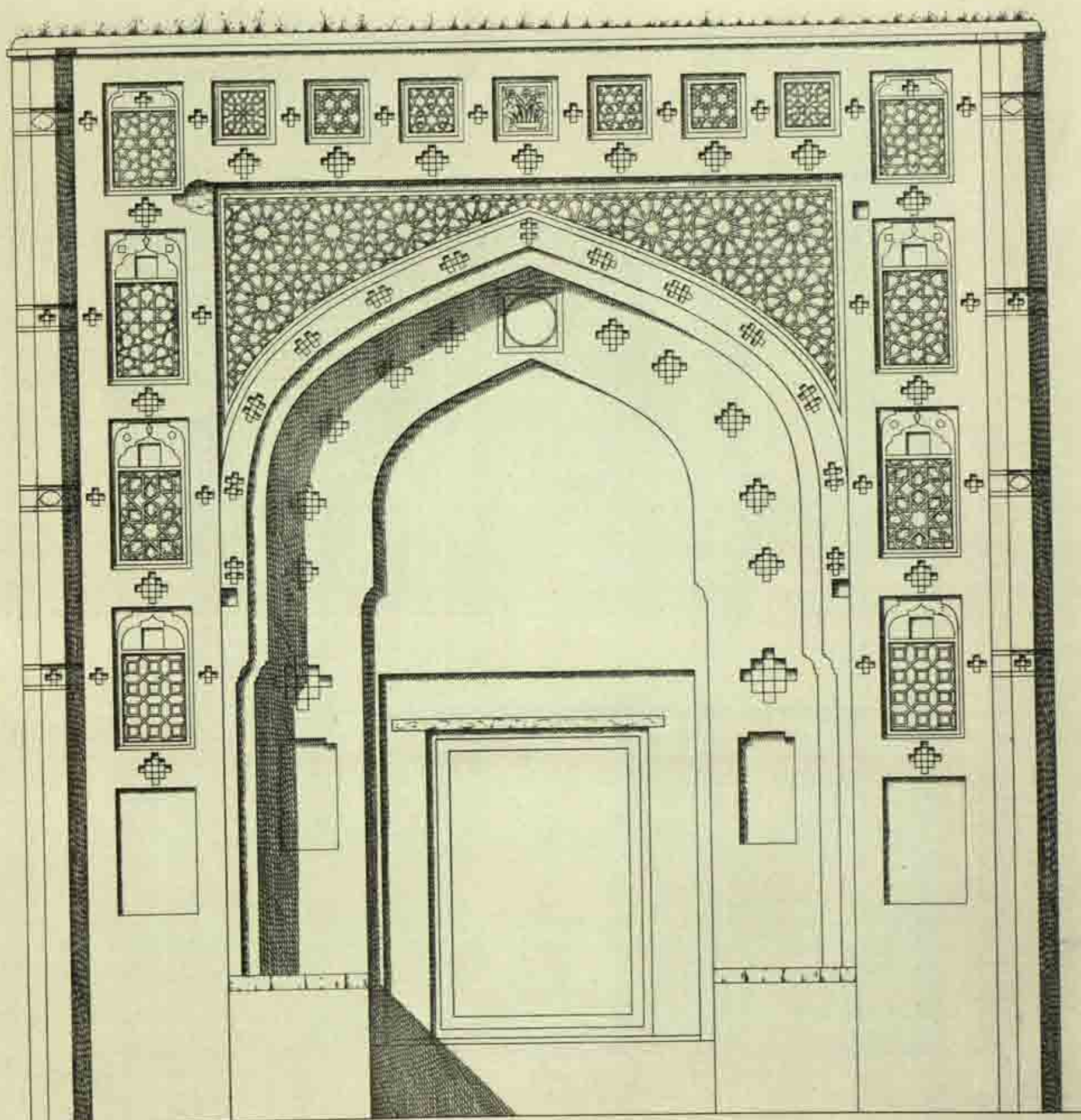
Scale—



TRILLED WINDOW, TOMB OF SHAKIL CHILLI THANESAR.

Photo. at hand.

Survey of India Office, Calcutta, August 1892.

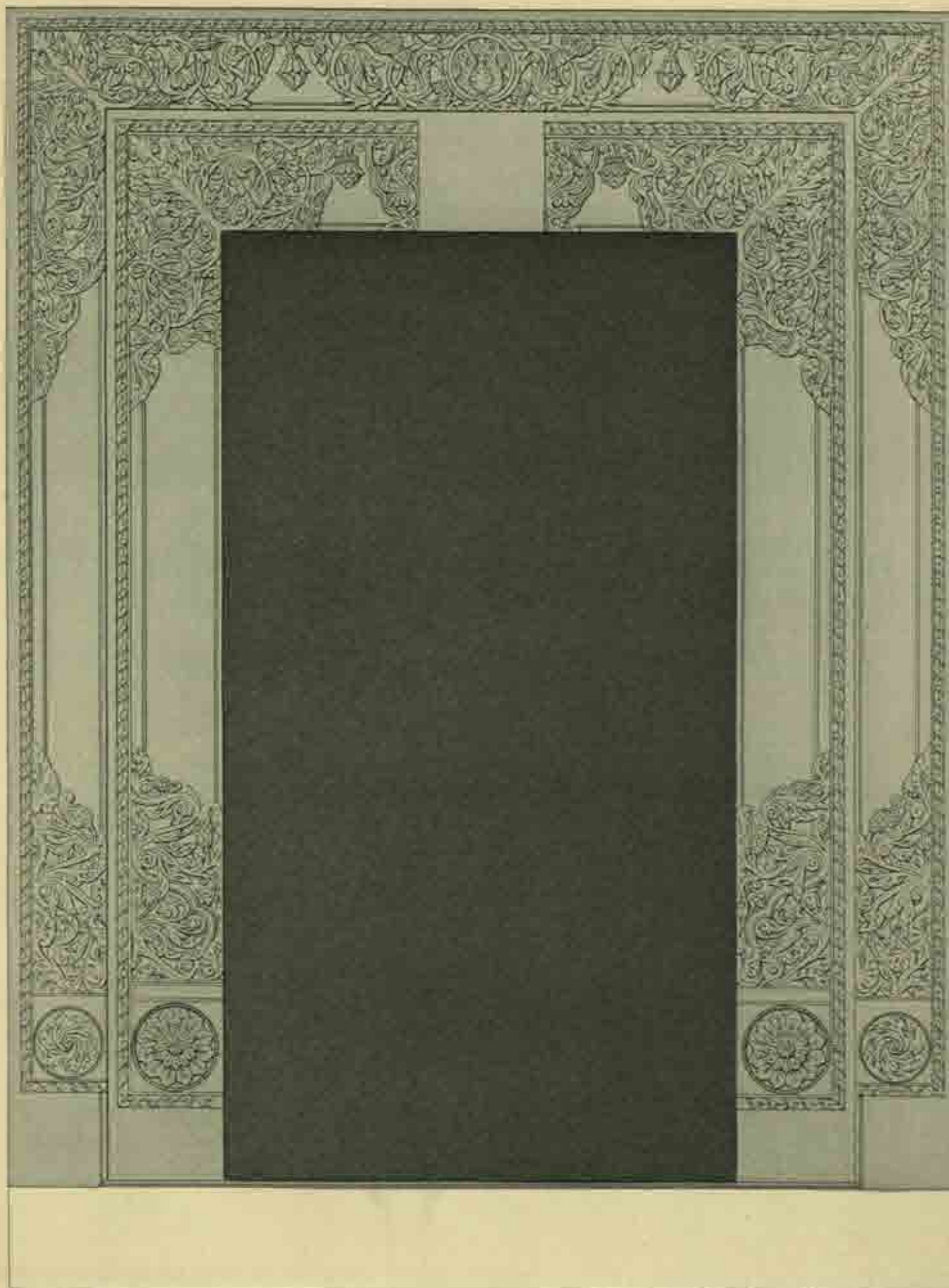


Scale

Inches 12 6 0 10 16 Feet

GATEWAY NEAR QAZIS MASJID. RADHAURA.

Genl. Archaeological Survey of Western India. No. 566.



Sketch-painting

Survey of India Office, Calcutta, December 1893

DOORWAY.

Feet 12 10 8 6 4 2 0

WOOD-CARVING FROM A HOUSE AT SRIGUNDA, AHMADNAGAR DISTRICT, BOMBAY

TECHNICAL ART SERIES 1893.

PLATE I.

PANEL AND ORNAMENTS ON PIERS, RÂMASVÂMI
TEMPLE, KUMBAKONAM, TANJORE DISTRICT.

THE temple of Râmasvâmi is architecturally the principal building in the town of Kumbakonam. Its earliest shrines date from the 11th century. The front colonnade dates from the 17th century. The latter contains a number of highly ornate piers, approaching in style the work found at Madura. The figures in the plate are examples of Dravidian carving from these piers. Fig. 1 is a horizontal band. Figs. 2 and 3 are ornaments applied to the body of the shaft. Fig. 4 is a panel on the square blocks found at the base, capital, and middle of the piers.

A. REA

PLATES II AND III.

CARVED PANELS ON THE SHRINE PILASTERS,
NÂGÊS WARA TEMPLE, KUMBAKONAM (II), AND ON
THE PANCHANÂDÊS'VARA TEMPLE (III),
TIRUVÂDI, TANJORE DISTRICT.

THE figures on these two plates are from different temples, and illustrate Chôla work of the 11th century. The pilasters are those on the walls of the shrines. The carving is placed underneath the capitals. The figures on Plate III have capitals similar to those shown on Plate II.

A. REA.

PLATES IV AND V.

MIHRAB FROM RUINED MOSQUE AT ERANDOL, KHANDESH.

PLATE IV gives an elevation of a carved stone *mihrab* from the old ruined mosque known as the Pāṇḍavāchā wādā at Erandol, in Khandesh. It is one of several, built into the back wall of the mosque, which are partly covered with the debris of the ruined building. It will be seen that the details are Hindu; and more, the general design of the whole is Hindu—that of a Hindu doorway adapted to its present use. The arch is the only foreign element in it. The very pilasters which uphold the arch belong to the original doorway, and were generally placed about the middle of the bands of moulding which run up either side, occupying the place of the middle moulding on this plate. Notwithstanding their damaged and weatherworn condition, these *mihrabs* are very handsome, one of the most pleasing features being the delicate fringe of hanging buds around the soffits of the arches. This is seen better on Plate V. The two strings of lotus buds running round the arch is a very favourite Hindu ornament, and is generally found running up the angular recesses of doorways between the broader bands of moulding. The upper and the lower of the three bands on Plate V are also very common Hindu ornament.

The mosque was built partly of pillars and other materials from a former Hindu temple; and, while much of the material was used over again for its original purpose, the sculptured figures with their delicate and minute ornament were relegated to the baser use of "filling in" for the great walls of the courtyard, and from sundry chinks and breaches they may be seen peering out pleadingly from their inglorious positions. Just as temple pillars, ceilings, beams, and other members have been used wholesale in the construction of many mosques, so would the elaborately sculptured doorways have been used too for the *mihrabs*, had they not been so covered with figure sculpture. This, to the iconoclast Musalman, was intolerable. He knocked off the few figures from the pillars before using them, but to have done so with those on the door frames would have rendered them anything but presentable objects as settings to their *mihrabs*—the chief features of interest and honour in a mosque. Hence they almost invariably had them made to order, the workmen—Hindus—knowing of no other suitable design than that of their own temple doorways minus the figures.

The boss on Plate V is from a niche in the wall of the colonnade of the mosque. Some very fine bosses of this kind are found, carved in high relief, in the niches of some of the minars of the Ahmedabad mosques. It is needless, almost, to say that they are Hindu, too.

H. COUSENS.

PLATE VI.

PART OF FACADE IN WOOD CARVING FROM A
HOUSE AT SRIGUNDA, AHMADNAGAR DISTRICT,
BOMBAY.



THIS plate represents part of the same building as that illustrated in plates XII and XIII of the Technical Art Series for 1892, and the remarks on "Old Wood Carving" in the text accompanying those plates apply also to it.

PLATE VII.

DETAIL OF PATERA, JODH BAI'S PALACE, FATEHPUR SIKRI.

IN the volume for 1891 were published several plates illustrative of the Moghul Architecture of Fatehpur Sikri, a report on which by the Archaeological Survey of India is now in the press. Plates VII to XII inclusive, tend further to illustrate the style, and are taken from the palace erected by Akbar for his chief queen, and now commonly and erroneously known as "Jodh Bai's Mahal". It is one of the earliest and largest of the buildings gracing the city and is built entirely of red sand stone quarried some few miles off. It is remarkable on account of the strong Hindu feeling pervading the whole design.

Externally it measures 215' 0" \times 232' 0". Inside is a quadrangle 179' 0" \times 162' 0" surrounded by suites of rooms 27' 0" in depth. At each angle is a double-storied apartment covered by a dome and it is from the underside one of these that the beautiful medallion illustrated on Plate VII is taken. It is executed in plaster, and measures 7' 3" in diameter. In section it is concave, and the ornament is in relief. The field is charmingly carved with an elaborate and very delicate scroll intermingled with leaves and flowers in low relief, and upon this ground a second and bolder pattern reposes. It is in four tiers and each becomes smaller as it approaches the centre of the medallion in which is a small kaleidoscope-like rosette. Around the outer tier is a border 8½" in width richly carved with floral ornament. The design savours a good deal of Moorish work.

The style of decoration is frequently met with at Fatehpur Sikri. Judging from unfinished portions one comes across in some of the buildings, the patterns appear to have been sketched upon the finished face of the plaster when dry and then very carefully carved afterwards. In many instances they have been painted in rich and brilliant colours. This was probably the case with the one before us, but unfortunately, like much of the other decoration in the building, it has been only too liberally coated with whitewash.

ED. W. SMITH.

PLATE VII

DETAIL OF INTERIOR, NORTH EAST CORNER, PALACE, LATHMUR

The interior of the North East corner of the Palace at Lathmur is a fine example of the architecture of the period. The room is a square, and the walls are decorated with a series of panels, each containing a different scene. The ceiling is also decorated with a series of panels, each containing a different scene. The floor is made of stone, and the walls are made of brick. The room is a fine example of the architecture of the period.

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PLATES VIII AND IX.

DETAIL OF ORNAMENTED JALI-BALUSTRADES AND PANEL, JODH BAI'S PALACE, FATEHPUR SIKRI.

THESE two plates afford samples of the *Jali* or stone screen-work, for which the city of Fatehpur Sikri is so notorious.

Figs. 1 and 7 on Plate VIII, and Figs. 1, 2, 3 on Plate IX, are balustrades around the small-domed pavilions in front of the upper floor rooms, upon which the royal occupants of the palace were wont to sit and lounge in the cool of the evening. In height they are 1' 6" and in thickness 3".

Fig. 8 is a stone panel, 2' 7" in length by 1' 5½" in width, projecting about half an inch from the gable wall, on the interior side, of one of the long rooms on the second floor roofed by blue glazed tiles. The decoration is in relief and projects about ⅜th of an inch from the face of the panel. In the centre is a well-cut circular and sunk leaf rosette in two tiers encircled by a small chaplet of beads, beyond which is a broad belt of filigree ornamentation, whilst the corners of the panel are filled up with leafage. The design could be utilized by workers in brass, wood-carvers, and gold and silver-smiths.

ED. W. SMITH.

PLATE IX.

DETAILS OF JALI-BALUSTRADE AND SCREEN WORK IN HAWA MAHAL, JODH BAI'S PALACE, FATEHPUR SIKRI.

PLATE IX (Figs. 4, 5, 6, 7, 8) exemplifies the screens enclosing the sides of the Hawa Mahal. The patterns are pierced out of solid slabs of stone, $2\frac{1}{2}$ " in thickness and of various sizes, according to the intercolumniation of the piers. Some measure 7' 6" in height by 5' 8" in width. The bars are flat in section and are chamfered both sides and measure $\frac{3}{4}$ " in thickness. The piers are surmounted by bracket capitals and at the top the screens are shaped to fit in the space between brackets. In that shown in Fig. 7 two small birds have been introduced, which, strange to say, have escaped the hands of the iconoclasts, who, after Akbar's demise, did so much damage to the carvings in the Turkish Sultana's house and elsewhere.

ED. W. SMITH.

PLATE X.
DETAIL OF WINDOW, JODH BAI'S PALACE,
FATEHPUR SIKRI.

PLATE X illustrates one of the screened windows from the rooms in the second floor. It measures 4' 7" across and is 6' 8" in height. It is divided into six compartments by a central mullion and transomes, and each is filled in with open reticulated stone tracery.

The designs in the two middle compartments assimilate and are common, but those in the upper and lower are not often met with. The glare of the sun is prevented from entering the chamber by a deep drip stone over the top of the window supported on small serpent brackets. The parapet is carved in imitation of an embattlement.

ED. W. SMITH.

PLATE XI.
DETAIL OF SHAFT IN RECEPTION ROOM, JODH
BAI'S PALACE, FATEHPUR SIKRI.

DETAILS of the columns and pilasters in the hall into which the balconette illustrated on Plate XII looks are exemplified here.

From the plan shown at the bottom of the drawing it will be seen they are of a broken square form, a shape frequently used by Hindus in their buildings, and the one adopted for the columns throughout the Great Mosque in the enclosure of which lies buried Sheikh Salim Chishti owing to whose influence, it is said, Akbar came to build Fatehpur Sikri. The shafts are bound at intervals by projecting bands variously ornamented with half-lotus rosettes, small lozenges and pellets, etc., whilst upon the front faces one sees the bell and chain, a most favourite symbolical ornament amongst Hindus and found carved upon their earliest edifices. At top and bottom the shafts break forward and are moulded, panelled, and carved with crude angle volutes and urns. The bases are moulded and stand upon a plinth, whilst a plain capital crowns the top of the column and upon it rests a heavy three-armed bracket supporting stone beams carrying the stone ceiling above. The brackets are richly carved and are seen in both front and side elevation upon the drawing. Sections giving the various projections of the mouldings, depth of carving, etc., are shown in hatched lines upon the elevations.

ED. W. SMITH.

PLATE XII.
DETAIL OF BALCONETTE, JODH BAI'S PALACE,
FATEHPUR SIKRI.

PLATE XII is a detail of one of the balconettes in front of the window openings in the mezzanine floor—traditionally used as a dining room—looking into the hall or reception room on the north side of the palace. In length it measures 6' 0" and projects 2' 6" from the face of the wall. The sides are slightly curved and composed of open scroll tracery 2" in thickness, surrounded by a moulded capping, and stop flush against the walls. The floor is of stone and 10" in depth and is moulded and carved around the outer sides and carried on two pairs of rich brackets 1' 7" in depth and 5" in thickness. The soffit is quite plain, but the back is ornamented with three beautifully carved lotus rosettes in bold relief.

ED. W. SMITH.

PLATE VII

DETAIL OF BATHOMETRIC
SECTION

Diagram illustrating the bathometric section of the earth's crust, showing the relationship between the land surface, the sea level, and the bathymetric profile. The diagram is divided into two main parts: the land surface (left) and the sea level (right). The land surface is shown with a profile line indicating the elevation of the land. The sea level is shown with a horizontal line representing the mean sea level. The bathymetric profile is shown with a line indicating the depth of the sea floor. The diagram is labeled with various letters and numbers to indicate specific points and measurements.

Fig. 1.

Fig. 1

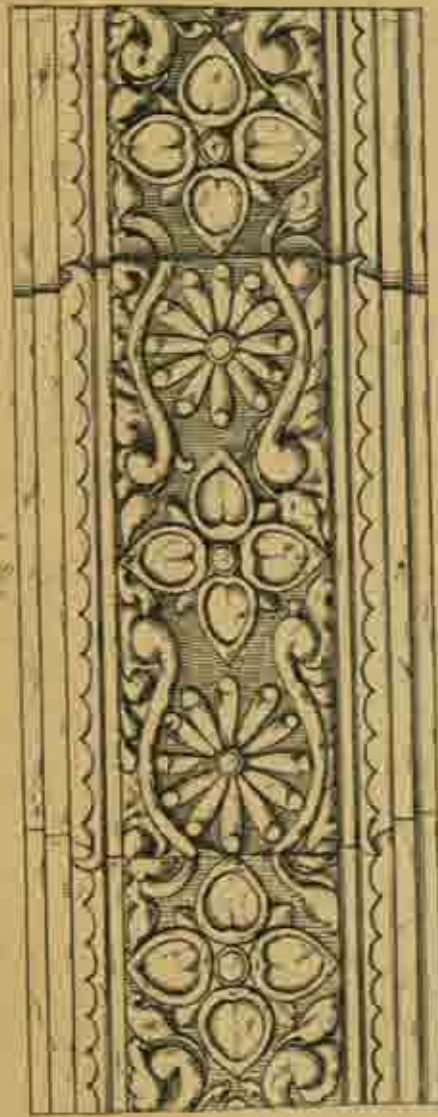


Fig. 2



Fig. 3

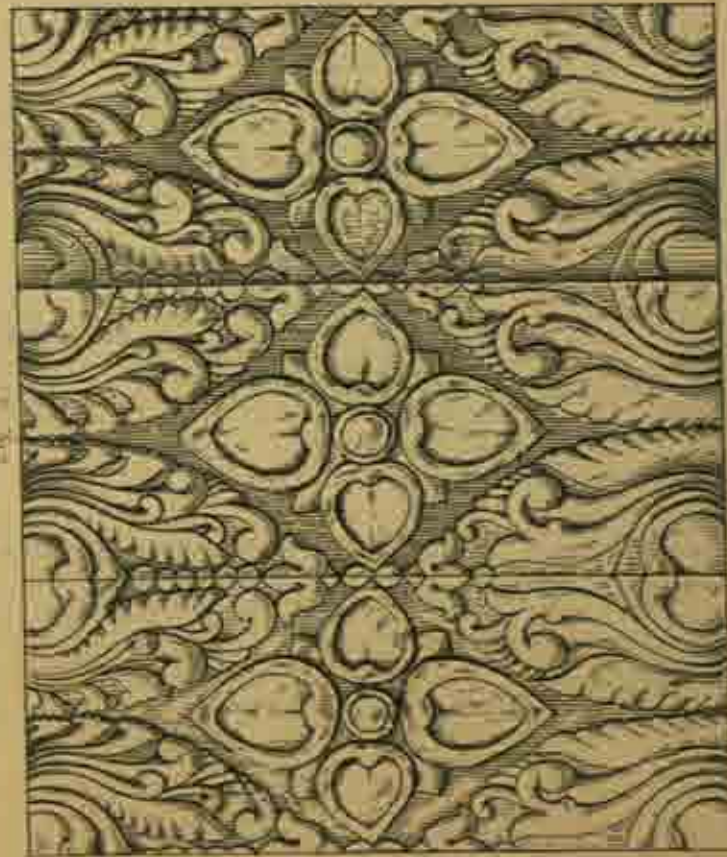
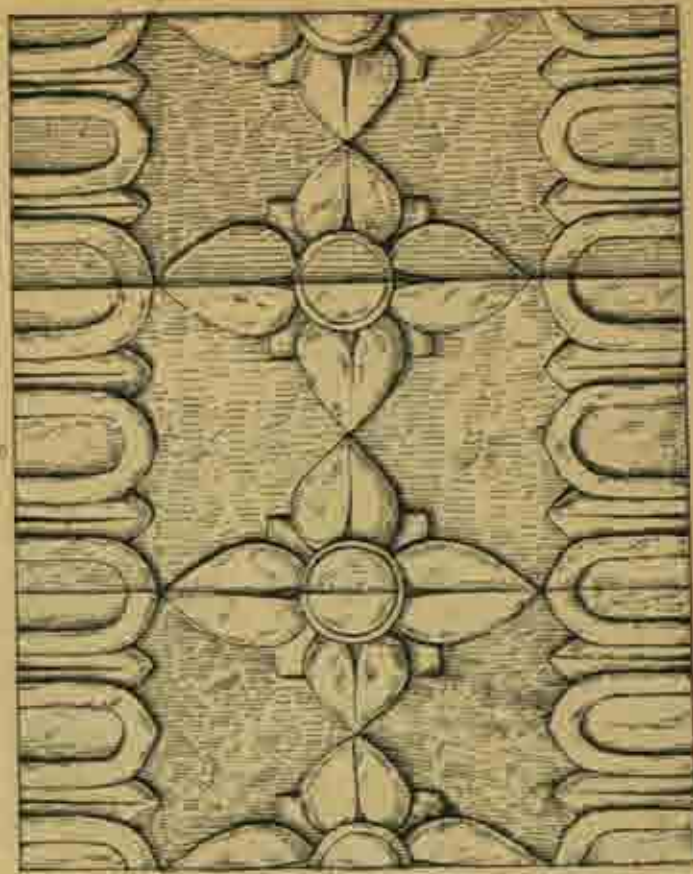


Fig. 4



Scale of Fig. 4



Scale of Fig. 3



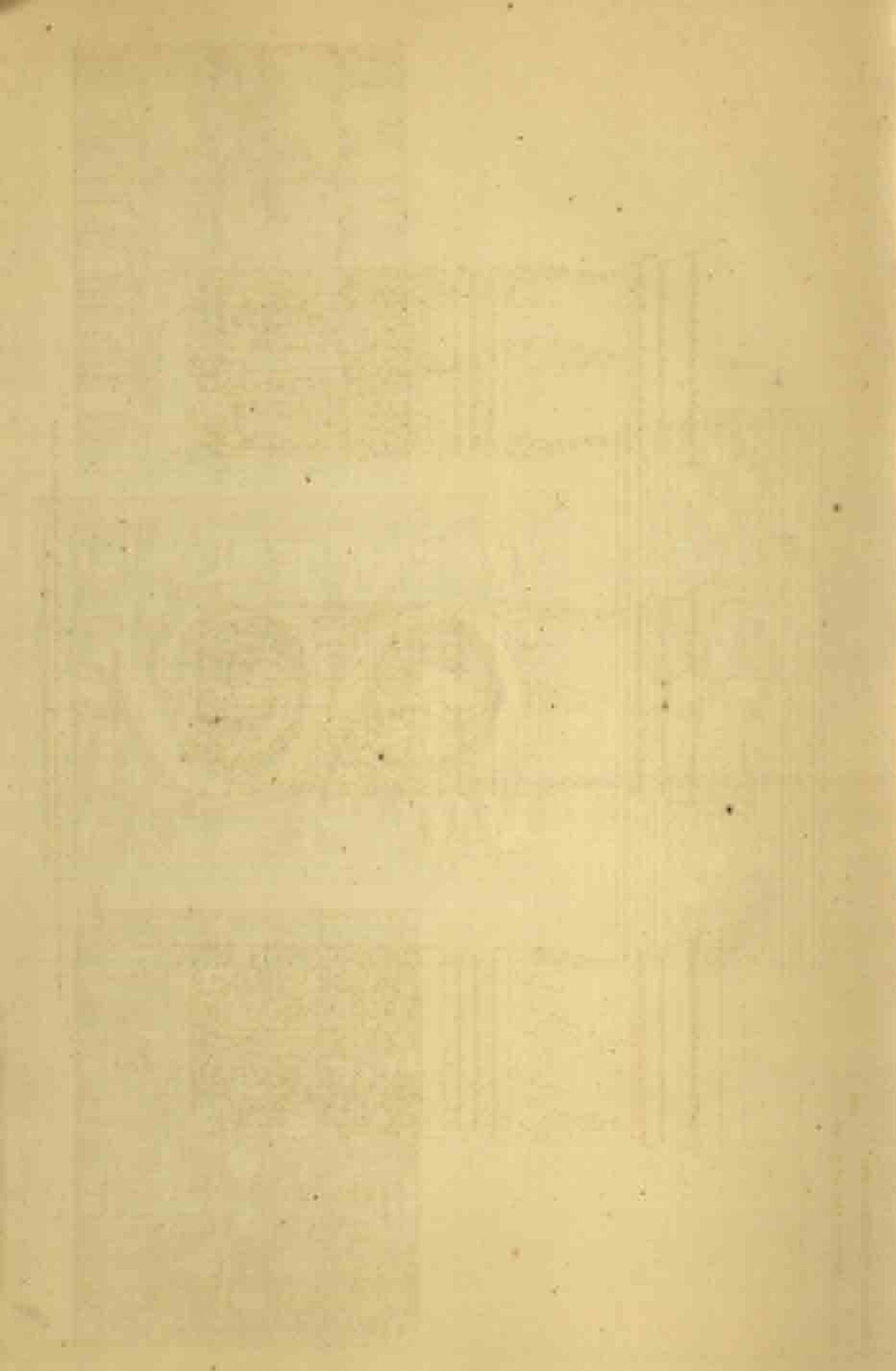


Fig. 1.

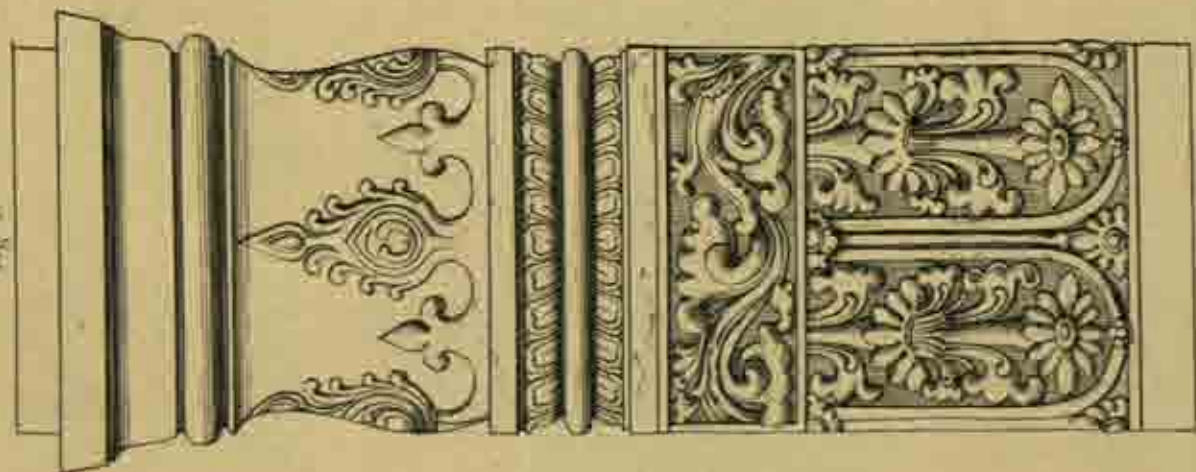


Fig. 2.

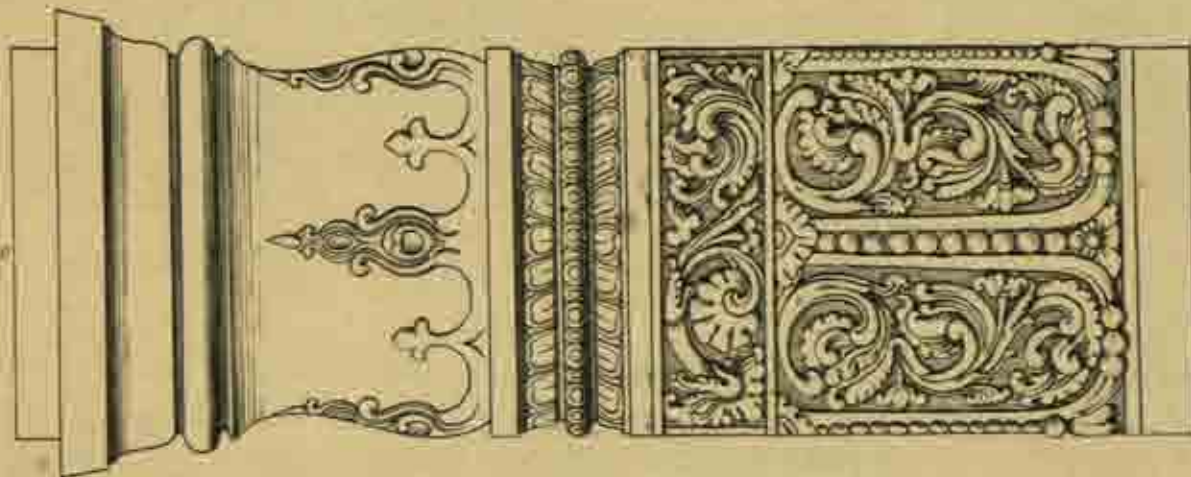
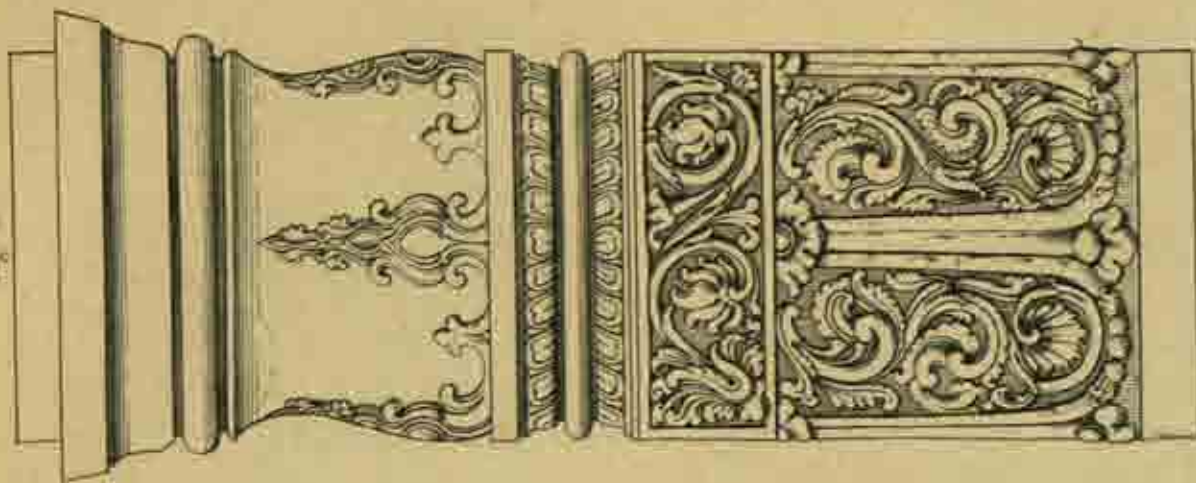


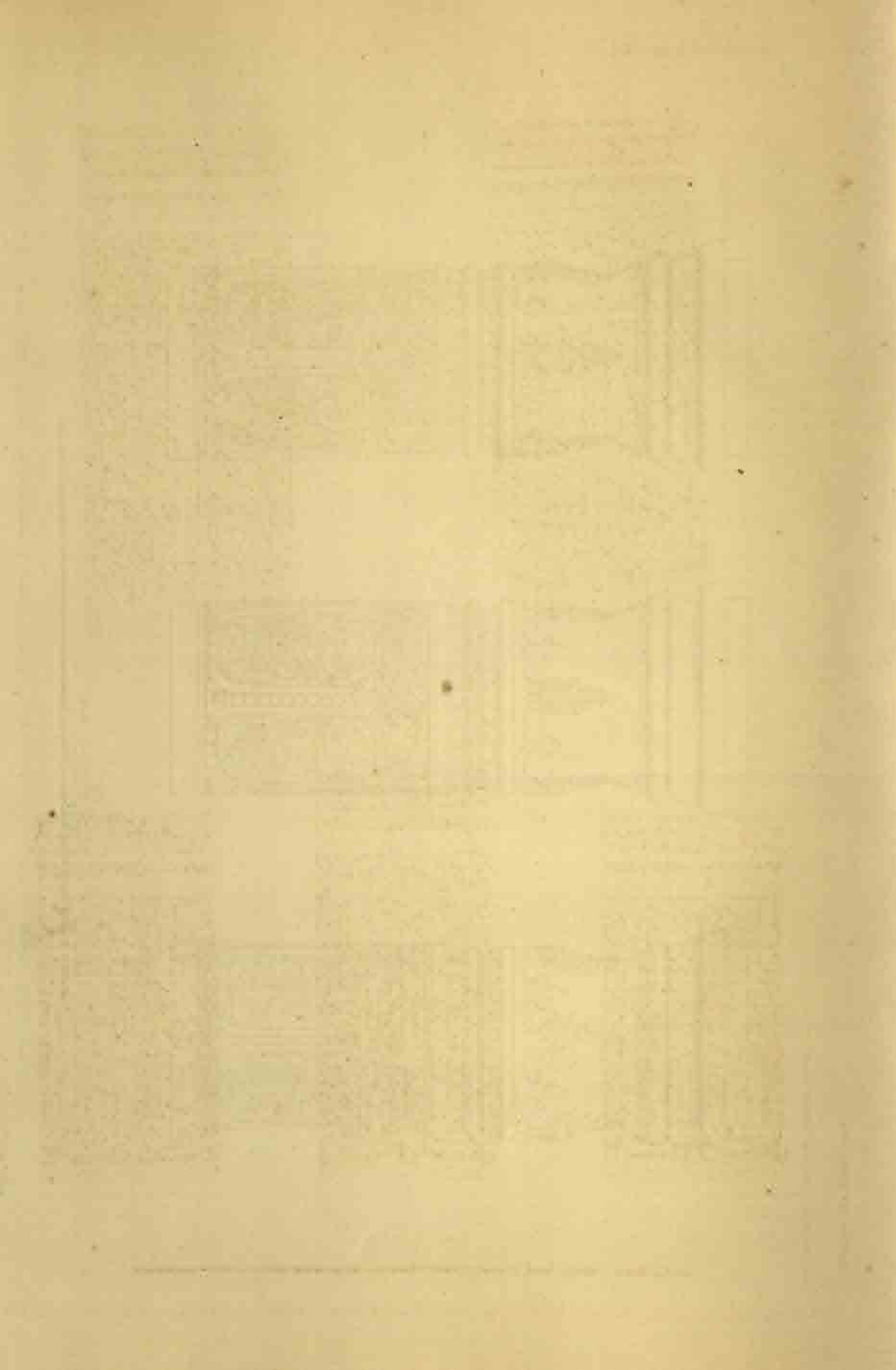
Fig. 3.



Scale
Inches 1 2 3 4 5 6 7 8 9 10

Feet

THE ARCHITECTURE OF THE TEMPLES OF THE KHAMBOUM TEMPLE DISTRICT



Small Architectural Details of Shrines, No. 500.

Fig. 1



Fig. 2



Fig. 3



Photo. 1895.

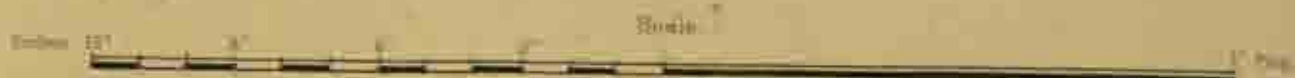
Fig. 4

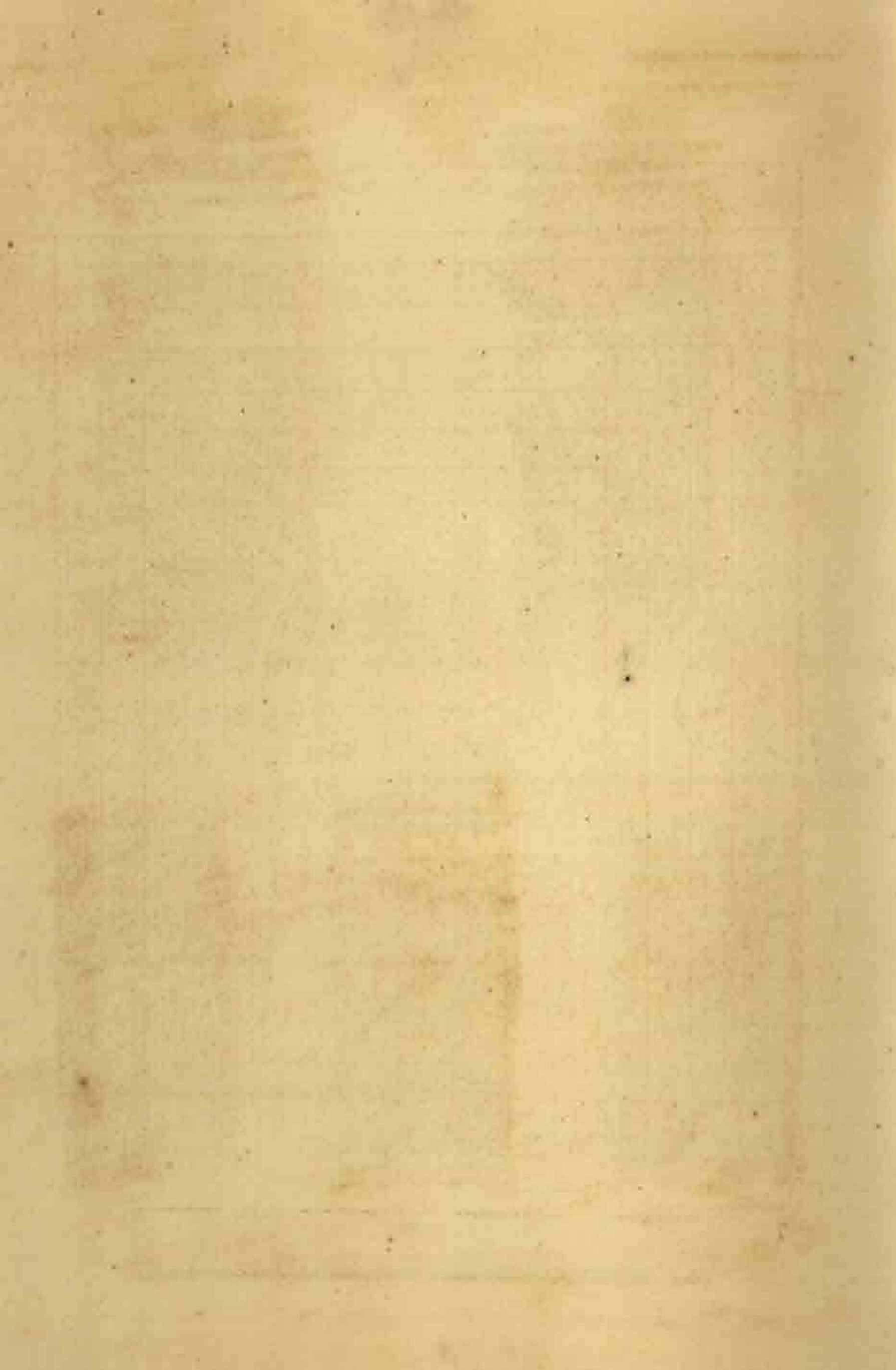


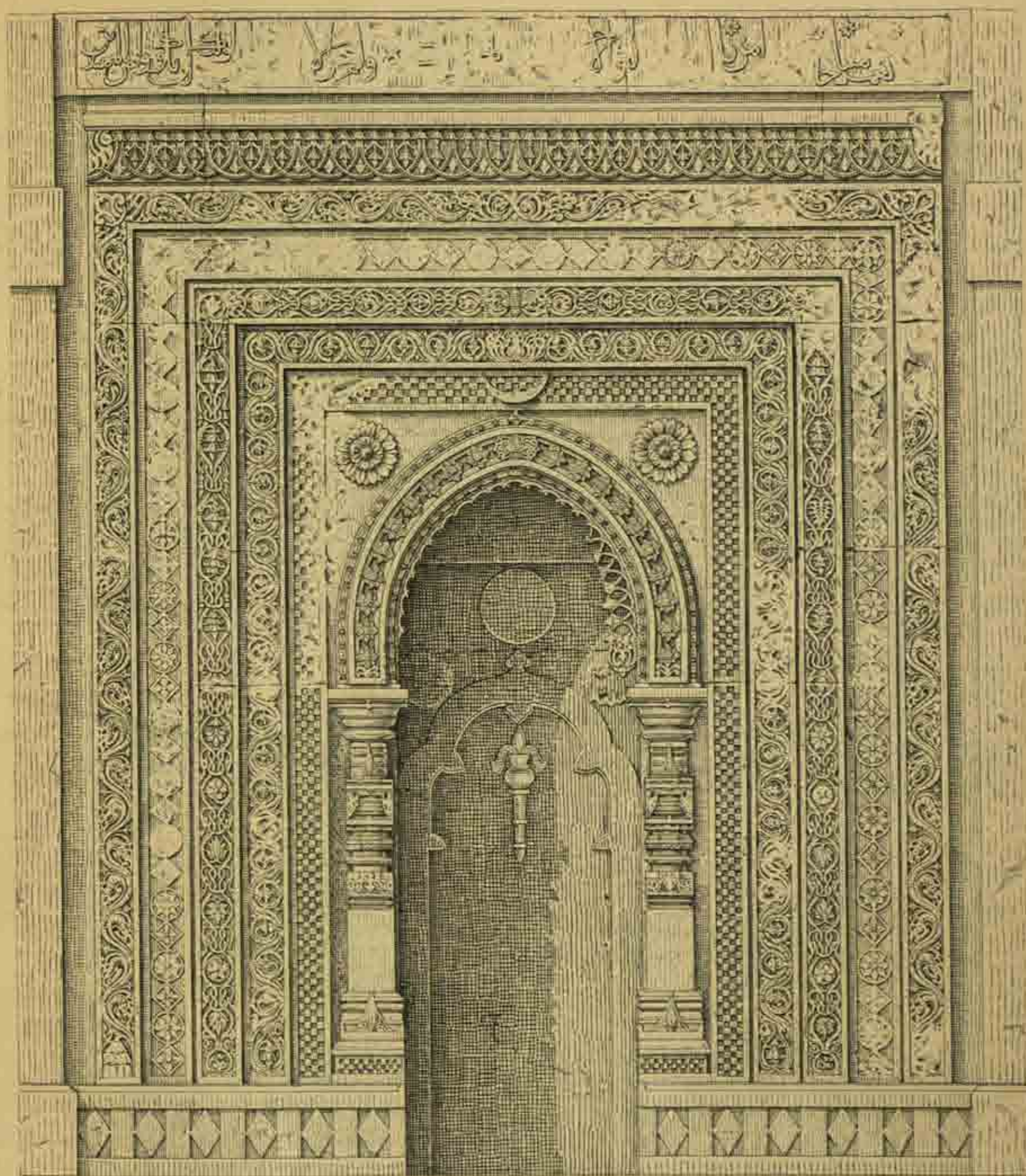
Fig. 5



Photo. 1895.







Inches 

MIRAB FROM RUINED MOSQUE AT BRANDOL, KHANDESH, BOMBAY.



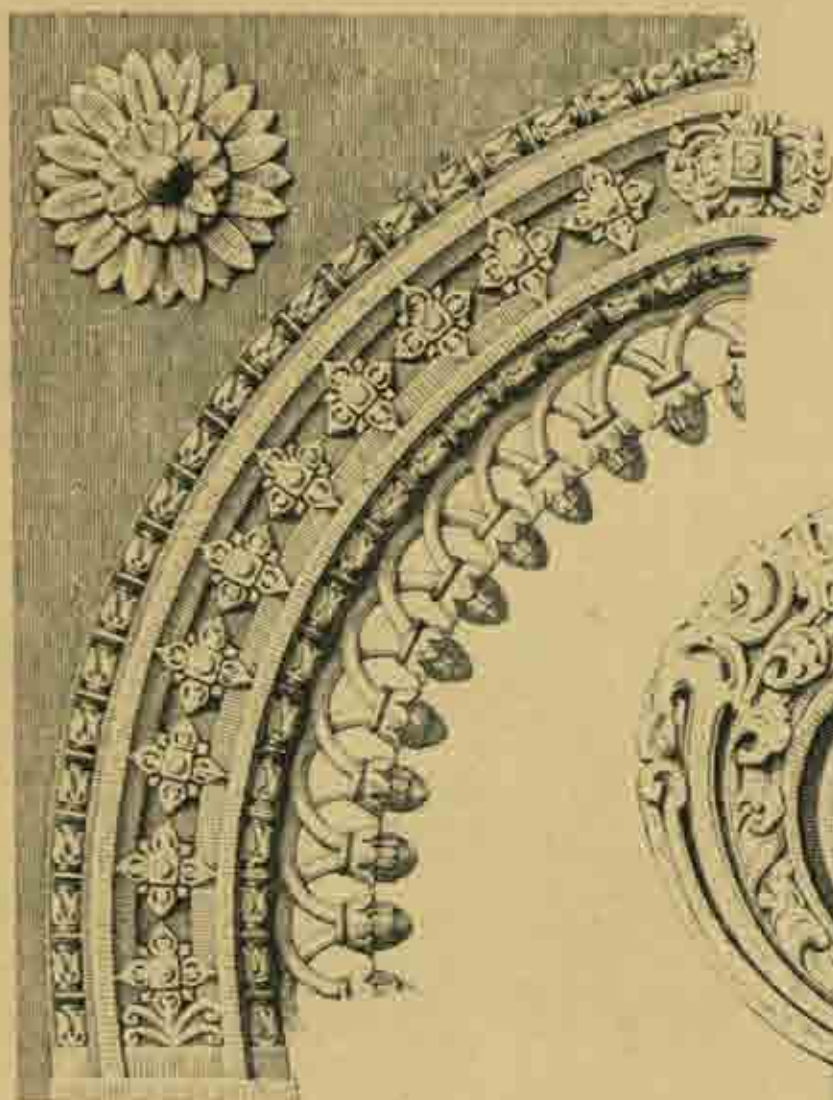
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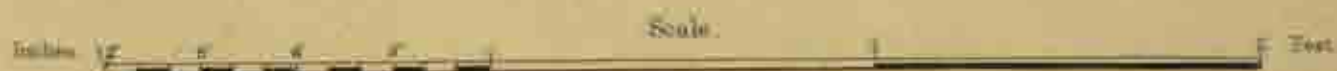
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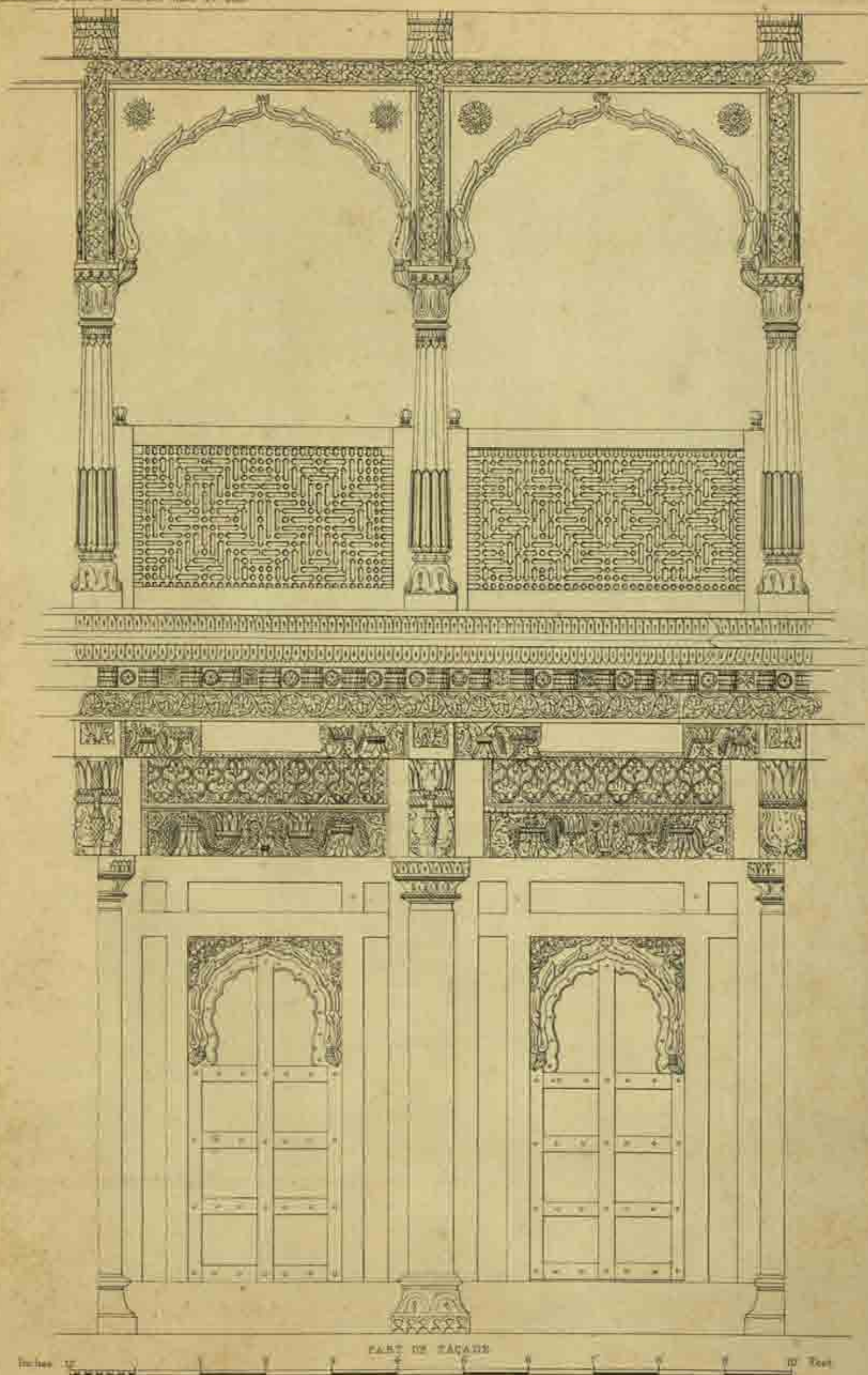


SEHNO GUMPER



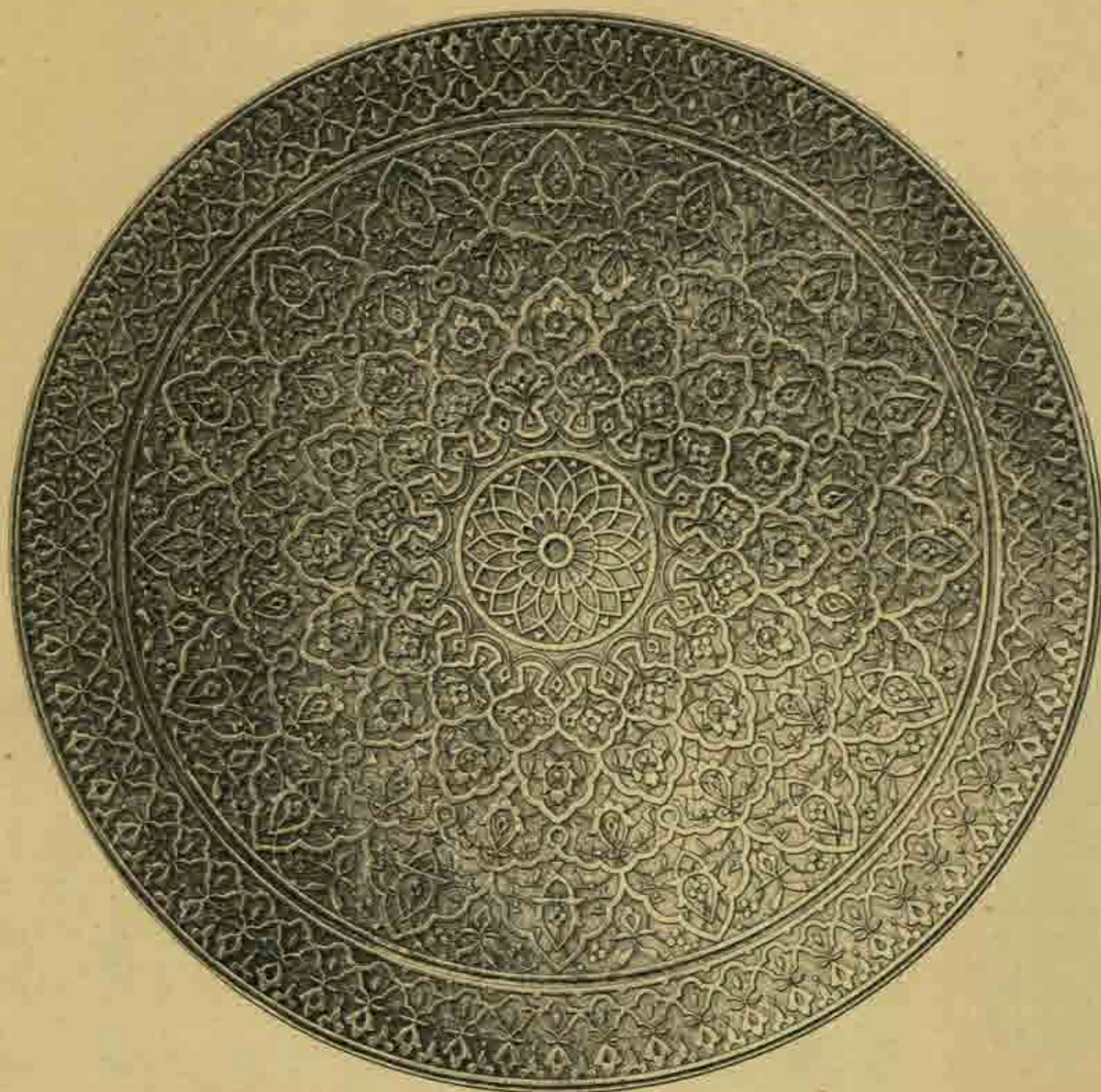
DETAILS FROM MIHRABS OF A RUINED MOSQUE AT BRANDOL REASOCH, HOMBAT

Guy's Archaeological Survey of Western India, Vol. 965.



WOOD-CARVING FROM A HOUSE AT SRIGUNDA, AHMEDNAGAR DISTRICT, BOMBAY

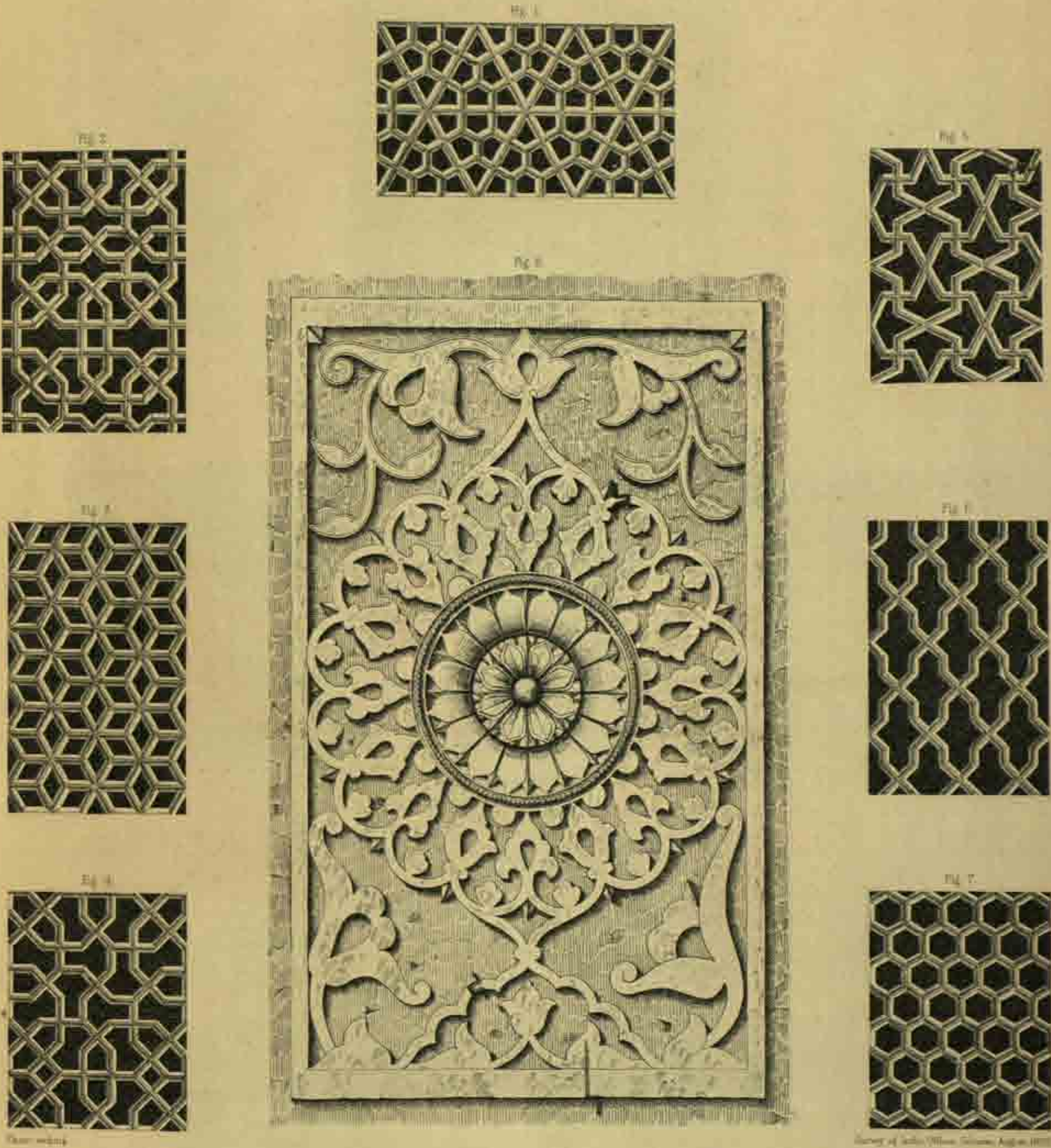
Genl. Anandarama Dutt, R.W. Purnima & Co., No. 553.



Scale:

Inches 0' 1' 2' 3' 4' 5' 6' 7' 8' 9' 10' Feet.

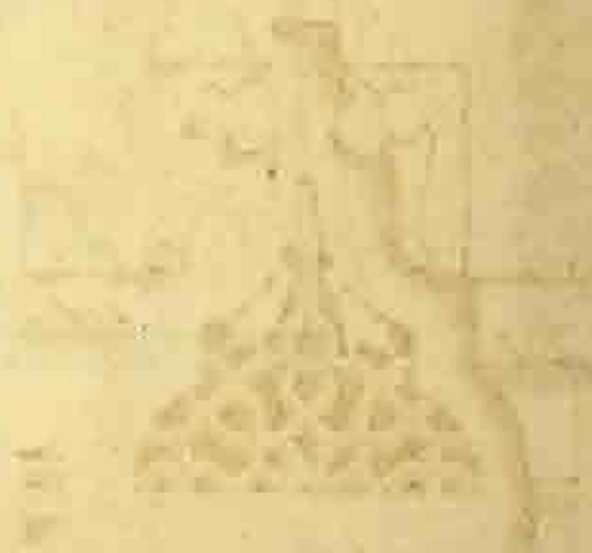
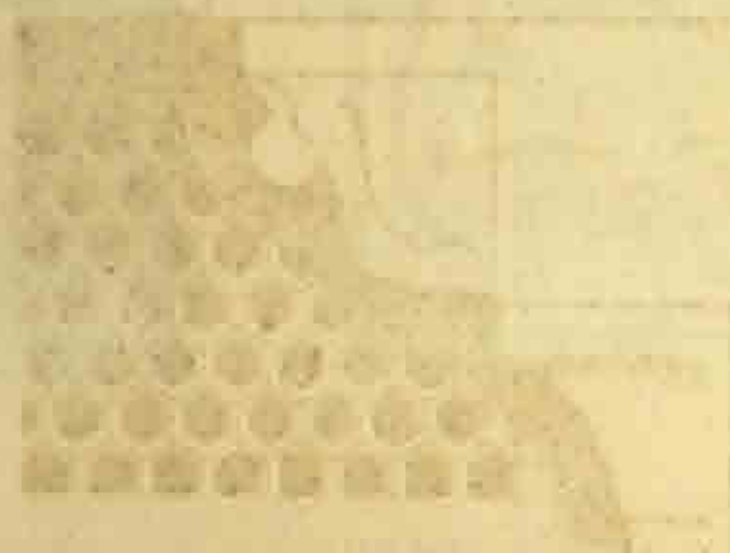
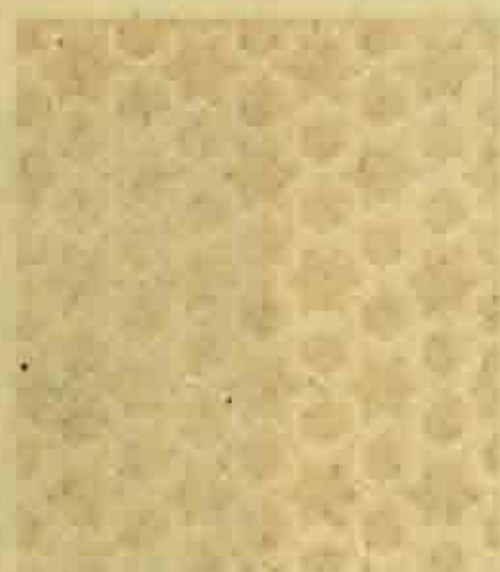
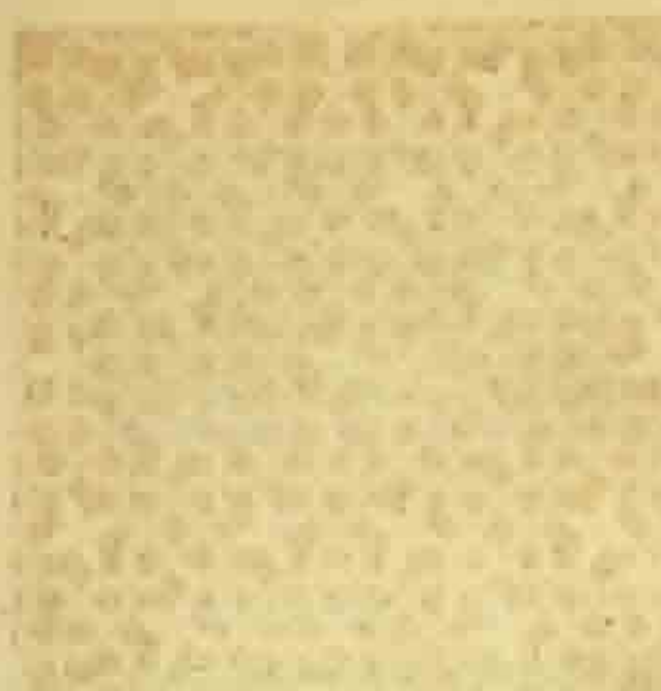
DETAIL OF PATERA, JOSEPH WALK PALACE, FATEHPUR SIKRI.

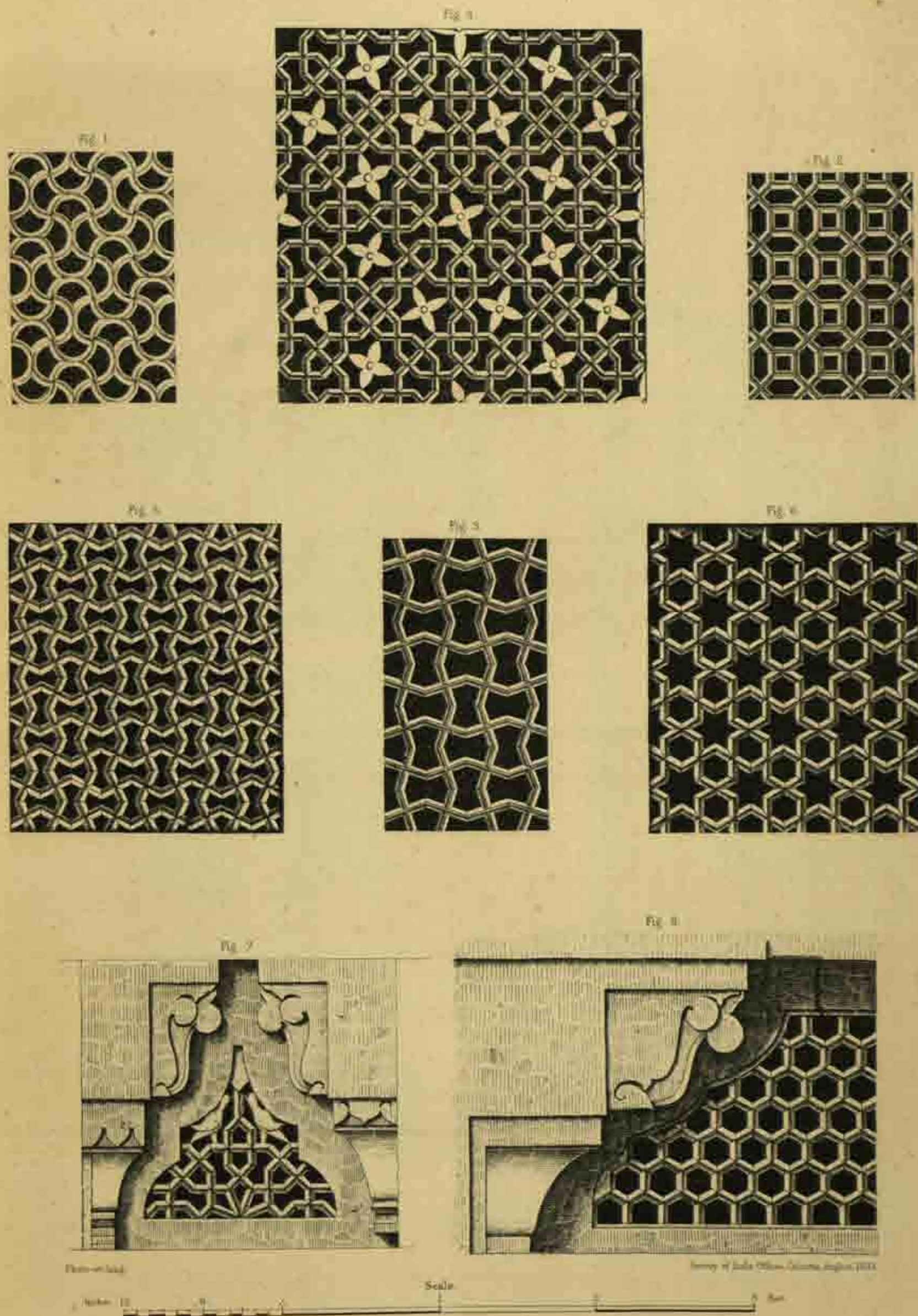


Scale of Figs. 1 to 7

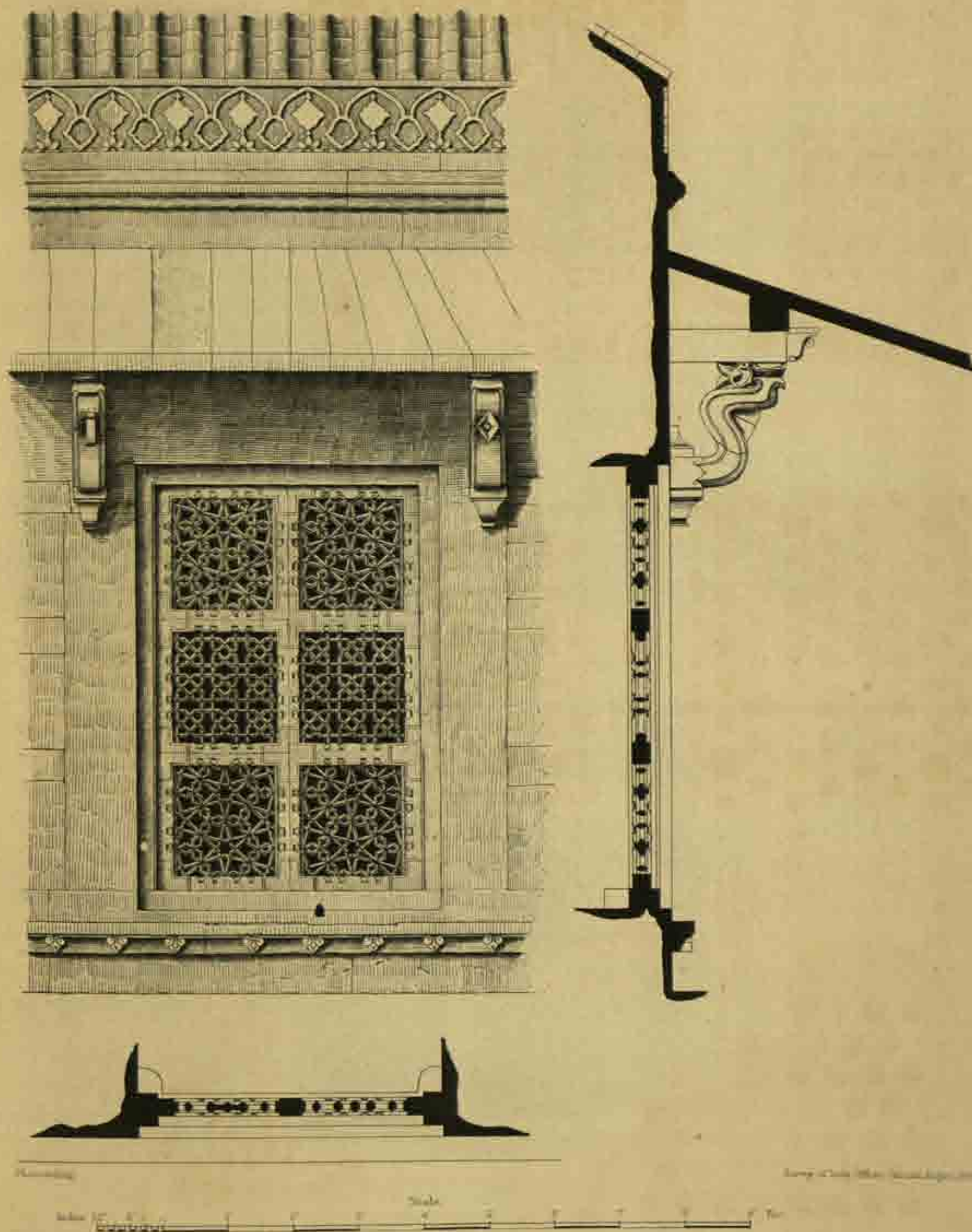
Scale of Fig. 8

DETAIL OF ORNAMENTED PANEL AND OF JALI HALUSTRADES, JODHPUR PALACE, PATAHEON STREET.



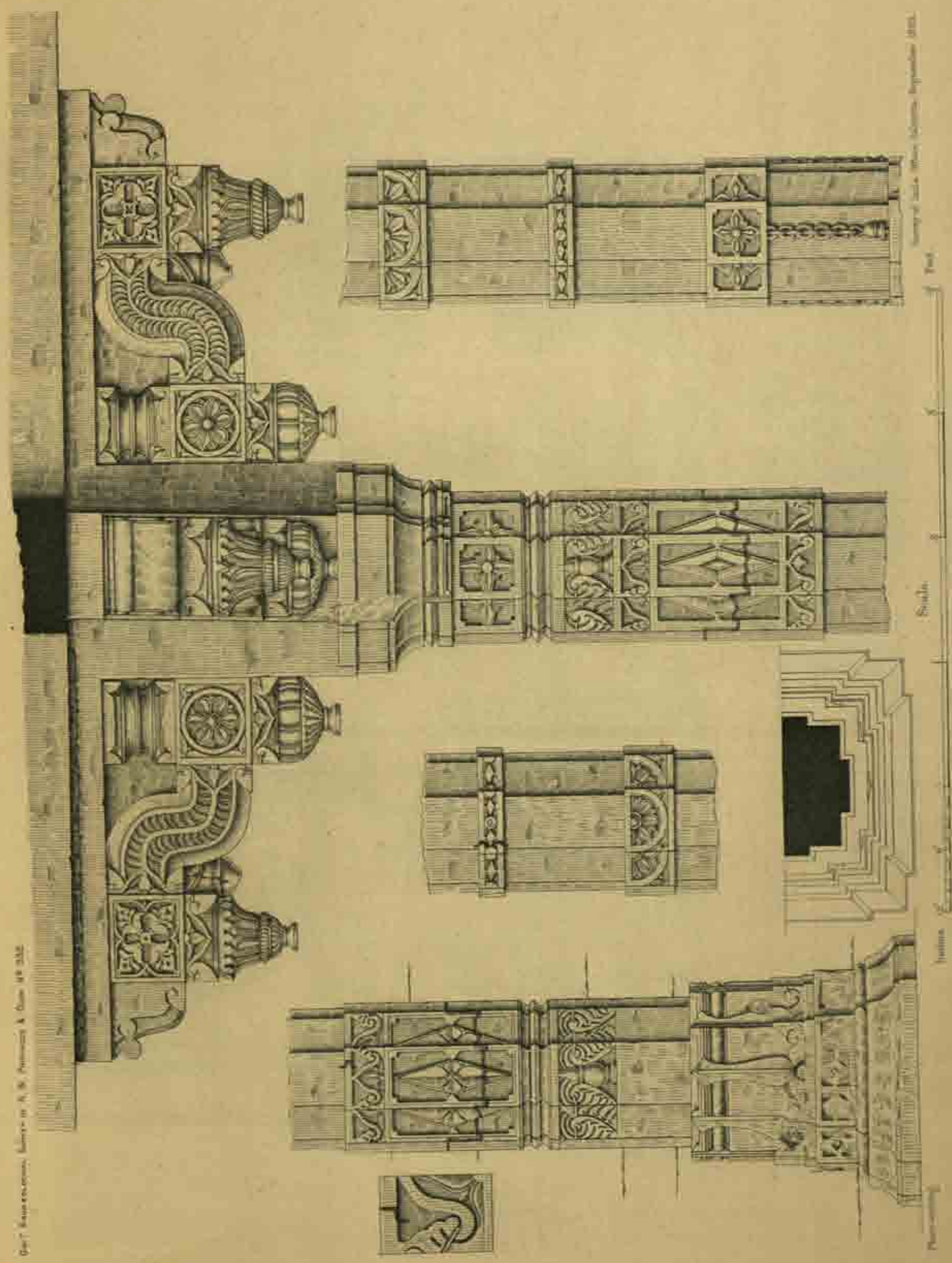


FIGS. 1 TO 3 DETAIL OF JALI BALUSTRADE. FIGS. 4 TO 6 DETAIL OF SCREEN WORK IN MAHUA MAHAL JUDH BAYS BELACE, PATNAPUR, OUDH.



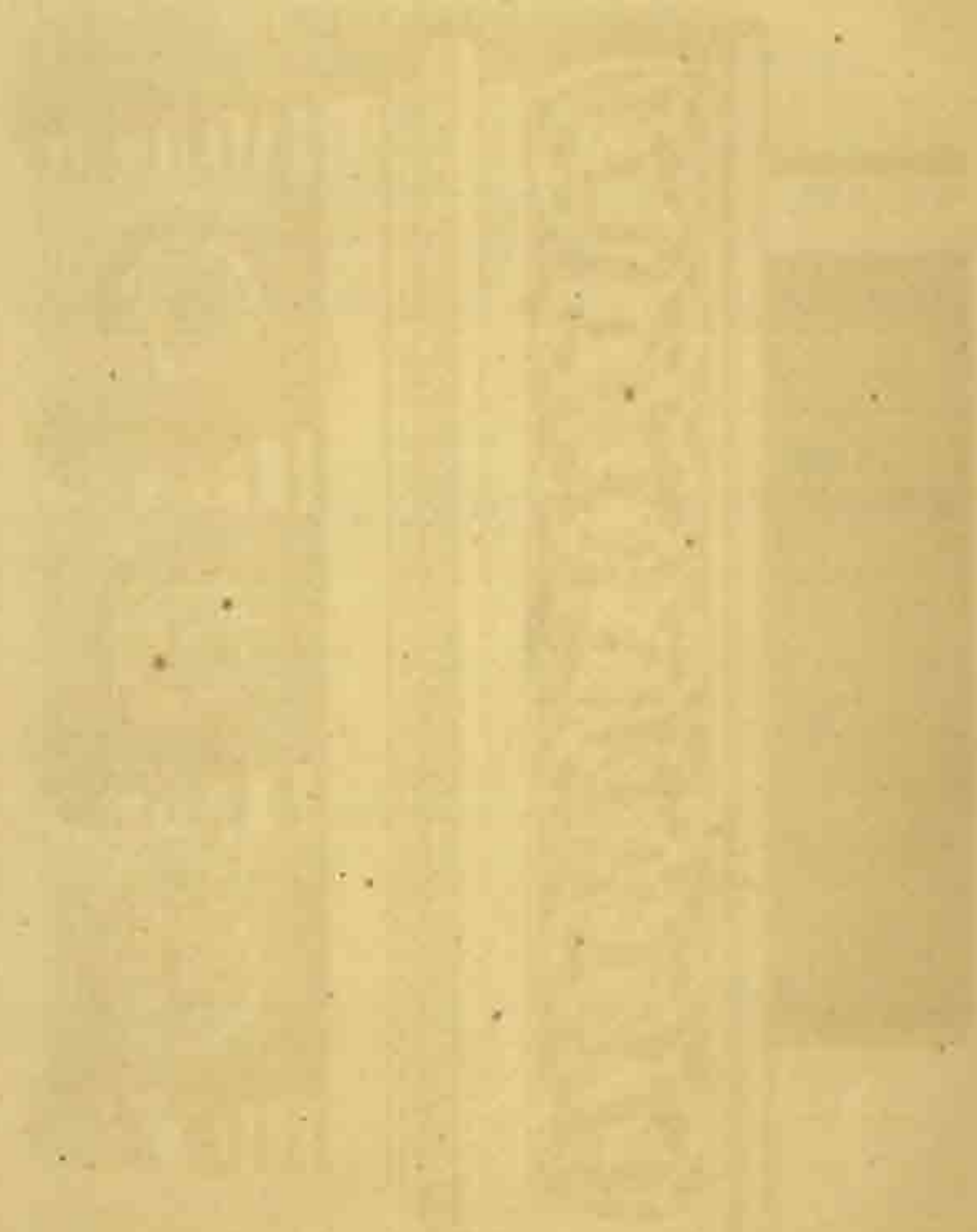
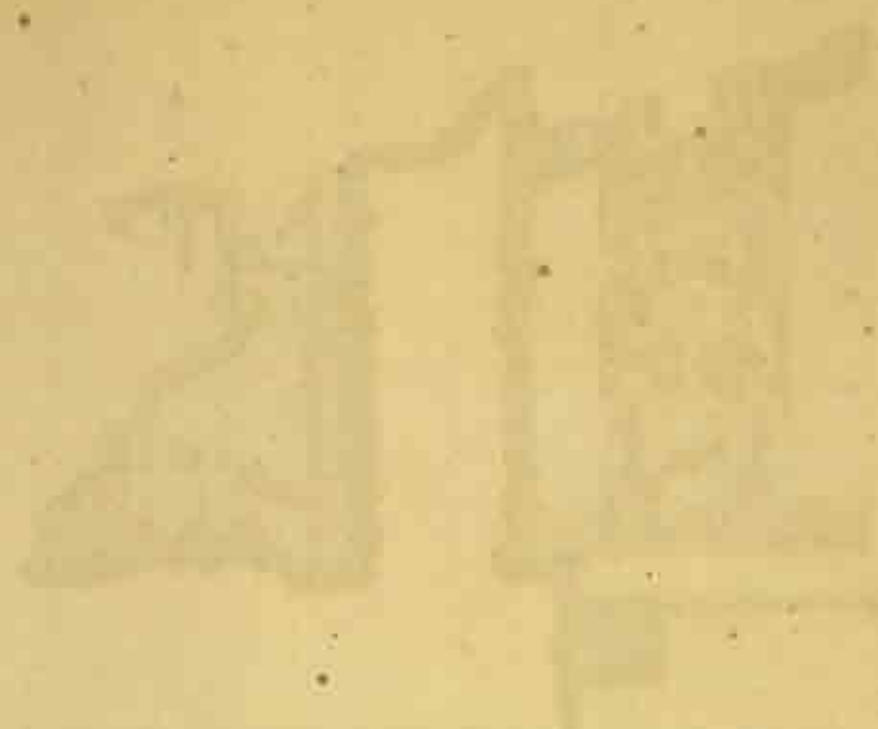
DETAIL OF WINDOW AND BAY PALACE FATEHPUR SIKRI

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DETAIL OF SHAFT IN RECEPTION ROOM, JOSEPH BATH PALACE, PATEILUR BIKI.

Surveyed by H. B. Fennell & Co. 1893.



TECHNICAL ART SERIES OF 1894.

PLATE I.

KOFT OR DAMASCENE WORK.

THIS art industry is not in a condition altogether satisfactory: it might be improved in its application, and in its method, especially by the restoration of the more ancient method of incised or deeply laid damascene. The Punjab work is all made by simply scratching the pattern on a steel or blued-iron surface, and then the fine gold wire which is caught and held in place for a short length at a time by the rough edges of the style scratch, is first hammered in (koft) and then rubbed down with an agate point (mohari). The work is of foreign (probably Persian) origin, and became popular in the Punjab, especially at Lahore, when the demand for inlaid arms and armour for the Sikh nobility was at its height, but the art seems to have been introduced long before that period, *viz.*, in Mahomedan times. The best workmen came from Kabul and beyond, and settled at Lahore, and a few of the class still remain, their work being superior both in taste and execution to that of Gujrat or Sialkot. Indeed, they only want to meet with encouragement in the way of good ancient models to copy or take ideas from, to produce excellent work. The modern workers, both at Gujrat and Sialkot, are injured by the want of some reasonable purpose to which to apply their art. At present they snatch at every European article, however worthless, in the shape of ornament, inkstand or platter to copy. Moreover the habit of bargaining and the beating down of prices compels the men to a cheap and superficial sort of work in which the gold is inferior and lightly applied and the design wanting in character, and too diffuse.

B. H. B.-P.

TECHNICAL ART SERIES, 1894.

PLATE II.

FATHPŪR SĪKRĪ : "JODH BAI'S" PALACE. CEILING OVER THE NORTH-WEST ANGLE ROOM ON THE GROUND FLOOR.

IN Parts for 1891 and 1893 of the Technical Art Series, several plates illustrative of the Moghal Architecture of Fathpūr Sīkrī appeared; and the plates we now give, numbered from II to VII, still further tend to illustrate the style. Those numbered from VII to XII of the part for 1893 were taken from "Jodh Bai's" palace, one of the earliest and largest of the numerous buildings adorning the city; which will ever be associated with the name of the great Akbar. Plate II of this year's issue is from the same residence, and it should be studied along with Plate VII of last year's part, which shows a medallion from one of the upper chambers standing at the angles of the court-yard. It represents the centre-piece of the ceiling in the room below that from which the medallion was taken. It measures about 6' 7" each way, but is not quite square. Like the medallion it is in stucco, and the pattern was first carefully drawn on the finished face of the plaster, and afterwards cut out. The style of work is the same as that upon the medallion, but the design is different. The field is similarly worked with a delicate and dainty scroll, entwined in and out amongst leaves and flowers in low relief, and reposing upon this, and covering the entire face of the panel, is a diaper, the variegated lines of which predominate over those of the scroll beneath. Enclosing the panel is a 10" border carved in keeping with the work within. All the carving is quite flat, but is raised one sixteenth to an eighth of an inch above the surface of the panel.

The design is of exceptional beauty and is admirably adapted for many purposes. Among artificers it could advantageously be used by gold and silver-smiths and workers in brass and iron, as well as for wood-carvers. The style of ornamentation was extensively used amongst the Moors in their best decorative works.

EDMD. W. SMITH.

TECHNICAL ART SERIES, 1894.

PLATE III.

FATHPÛR SIKRÎ: BÎR BAL'S HOUSE. DETAILS OF DADO PANELS.

PLATES III and IV are from Bîr Bal's house. Bîr Bal was a Hindû and one of Akbar's favourite ministers, and one of the few grandees who embraced the new religion his imperial master was founding. Setting aside "Jodh Bai's" palace, it is the largest domestic building now extant within the city walls. It is built of red sand-stone, and like the apartments set aside for the Turkish Sultâna, is carved both inside and out, from top to bottom. The dadoes are most elaborate pieces of work, and Plate III affords an example of some of the panels carved upon these. Nearly all are surrounded by broad borders of geometrical tracery, bounded at the sides by handsome pilasters (see Plate V) extending from floor to ceiling.

Fig. 1 is from the north-west upper floor room, and the panel measures 2' 0" by 4' 1". The design, as the drawing shows, is a geometric one, and the ground is studded with small leaf rosettes, the borders being carved with undulating scrolls. Great pains were taken by the carvers to avoid any harshness about the corners of their borders, and it is noticeable how well they succeeded. Figs. 2 and 3 are from the east ground-floor room, and like the panels shown on the preceding figure are wrought in red sand-stone.

The carving is raised about a quarter of an inch above the ground of the panel, and floral designs have taken the place of the geometrical ones. The borders are much narrower, and in lieu of the scroll a kind of "dog-tooth" ornament has been substituted.

EDMUND W. SMITH.

TECHNICAL ART SERIES, 1894.

PLATES IV AND V.

FATHPÛR SĪKRĪ: BĪR BAL'S HOUSE.

DETAIL OF FRIEZES AROUND THE INTERIOR OF THE DOMES OVER THE
UPPER FLOOR ROOMS AND OF THE BASES BENEATH THE PILASTERS.

FIGURES 1 and 2 are details of the friezes round the interior of the domes surmounting the two rooms forming the upper storey of Bīr-Bal's house. As the illustrations show, they are carved with a raised repeating trefoil-shaped pattern of a V section upon a ground of flat leaf ornamentation. Although similar, the designs are not both alike: the one, Fig. 1, being used for the south-east room; and the other, Fig. 2, for the north-west apartment.

Figs. 3 and 4 illustrate the style of carving upon the bases beneath the pilasters, which throughout the house, both inside and out, are more or less elaborately carved. At the bottom of the base we find a half-lotus rosette, and this is surrounded by a deep undulating band of rich raised ornament terminated at the angles of the base in carved ear-ends. In all instances the plinth of the base is perfectly plain, but the top is worked with mouldings. These are of a crude contour, and the upper member is invariably carved with a row of plain vertical leaves. The shaft of the pilaster rests upon the top of these mouldings, but the mouldings form no part of the pilaster itself. The pilasters are richly sculptured and generally are divided into three parts by oblong panels (see Plate V) enclosed by spiral leaf-scrolls and foliated creepers.

In nearly all cases the designs of the panels are different, and many of them might be utilised to advantage by artizans and others in a number of ways. How varied they are will be seen from the examples given in Plate V.

EDMD. W. SMITH.

TECHNICAL ART SERIES, 1894.

PLATE VI.

FATHPŪR SĪKRĪ: BĪR BAL'S HOUSE.

THE NORTH PORCH.—DETAIL OF ARCHWAY OVER THE ENTRANCE.

THE drawing on this Plate represents the upper portion of the entrance porch on the north side of Bīr Bal's house. On the south side is a corresponding one, which, it is to be regretted has been turned, to suit modern requirements, into a bath-room. Both assimilate in design, but the detail is varied. The walls at the sides, both externally and internally, are elaborately carved, and every few feet apart they are broken up by pilasters. Between each pilaster is a pretty arched recess, some 1' 6" in depth. The ceilings of the porches are coved and carved on the soffit, or underside, with very effective geometrical patterns. In keeping with the walls the pilasters are decorated, and the drawings shown on Figs. 3 and 4, Plate IV, illustrate the nature of the ornament on the bases.

The top of the entrance is spanned by massive stone lintels, supported, as the drawing shows, on solid brackets of Hindū origin. Partly concealing the lintels are slabs of stone, hewn out into the form of an arch, which rest on the capitals of pilasters on the sides of the entrance. As will be observed from the drawing, they are exquisitely carved. The spandrels, the extrados, and the face of the "arch," as well as the brackets beneath the lintels, have each in turn received the attention of the carver. The ornamentation upon the spandrels is raised and grouped in graceful scrolls round a rich circular leaf-carved patera in the centre of each spandril, a section of which is given on the side of the drawing. The tendrils of the scroll encircling the pateræ are looped together here and there by little leaf rosettes, and the leaves at the ends have a peculiar re-entering curve, which is a prominent feature in Arabian and Persian ornament. The face of the "arch" is carved with the "sangtara" looped together by cuspings and along the top of it is a very pretty band of scroll-work.

The upper part of the left spandril is somewhat injured, but the work on the whole, considering its delicate nature, is in a remarkably good state of preservation, and this is owing to the protection afforded it by a drip-stone projecting a considerable way in front of the entrance which is seen in elevation along the top of the drawing.

EDMD. W. SMITH.

TECHNICAL ART SERIES, 1894.

PLATE VII.

FATHPÛR SÍKRÎ: BÎR BAL'S HOUSE. DETAIL OF WAINSCOTTED WALLS IN THE UPPER ROOMS.

TO what an extent the walls of Bîr Bal's house are carved can be judged from Plate VII, which illustrates the ornamentation upon the interior walls of the upper chamber crowning the south-east corner of the house. They are built in red sand-stone, and the wainscotting extends from the floor to the top of the capitals of the pilasters in the corners and upon the sides of the room supporting stone beams laid across the angles of the apartment to carry a dome above. The frieze around the dome was given on Plate IV.

The lower portion of the wainscotting is solid and panelled with an uncommon geometrical device, whilst the upper part is pierced by a recess, some 1' 6" deep, divided by a shelf into two parts which served the purposes of compartments. The front of the shelf, like the sides of the recess and panels, is neatly chiselled with a continuous double leaf-scroll. The pilasters at the sides of the wainscotting are elaborately ornamented with floral and geometrical devices, and the architraves round the doors are carved in keeping with the surroundings. It is seldom, if ever, one sees a wall so elaborately carved, although it was a common practice of the period to divide them up into recesses, which were used—as furniture was hardly known—as almirahs. The design is more applicable to wood than stone, and with slight modifications might very suitably be utilised for cabinet-work.

EDMD. W. SMITH.

TECHNICAL ART SERIES, 1894.

PLATES VIII AND IX.

DECORATIVE ORNAMENTS FROM AN ANCIENT JAINA STÛPA AT MATHURÂ.

THE sculptures represented on these plates were found by me during the excavation of the Kankālī Tīlā at Mathurā in 1890, and are now in the Lucknow Museum. They formed parts of an ancient Jaina Stūpa which, according to the inscriptions discovered on the spot, was built several centuries before the Christian era (*see* also Plate VI of 1892). Plate VIII exhibits a small corner pillar of a railing, showing on the inner side two eyelet holes for the reception of the stone bars or rails. The flowered ornamentation used in the decoration of this pillar consists of the lotus plant with its buds and blossoms, which are of singular beauty and delicacy of design. The decorative ornaments, represented in Figures 1 and 2 of Plate IX, exhibit a variety of highly ornamental *trishūlas* which, with the ancient Jāinas, were considered as emblems of "the three Jewels," *viz.*, right faith, right cognition, and right conduct. The *trishūla* was no doubt, in ancient India, a symbol used by all sects for various purposes and with various interpretations. It was also commonly used for personal ornaments, and appears in earrings, in necklaces, and women's girdles, and has frequently the very same shape as on Plate IX. Figure 3 represents a continuous undulating stalk studded with the leaves and flowers of the *pāṭali*, or "trumpet flower," which forms a very effective decoration. These new sculptures from the Kankālī Tīlā prove that the ancient art of the Jāinas did not differ materially from that of the Bauddhas. Both sects use the same ornaments, the same artistic motives and the same sacred symbols, differences occurring chiefly in minor points only. The cause of this agreement is, in all probability, not that the adherents of one sect imitated those of the other, but that both drew on the national art of India and employed the same artists. Full proof of this assumption, which modifies the statements in some standard works on Indian archaeology regarding the development of ancient Indian art, can only be obtained by the excavation of really old Brahmanical temples.

A. FUHRER.

TECHNICAL ART SERIES 1894.

PLATE X.

DECORATED CEILING PANELS FROM THE TEMPLE
OF AMBARNATH.

THE temple of Ambarnath, at the village of Ambarnath, is situated about 4 miles from Kalyan Junction, on the Great Indian Peninsula Railway. From an inscription within, it would appear to have been built in the ninth century. The building is richly sculptured throughout; but its ceilings are especially well decorated. A great deal of it is incised work, and the light, as it comes in at the doorways at an oblique angle upon it, produces deep rich shadows in the channels between the pattern.

TECHNICAL ART SERIES 1894.

PLATE XI.

WOOD-CARVING FROM BIJAPUR.

THE wood-carving on Plate XI is from Bijapur. Bijapur, though noted for its buildings and work in stone, is not so for its wood-carving, at least at present. But the city was rifled when it fell into the hands of the Marathas in 1818, and nearly all its buildings were stripped of their woodwork. The few fragments remaining, which are occasionally met with, are sufficient to justify the conclusion that it contained abundance of remarkably fine work in this line which supplemented the masonry work, such as ceilings, balconies, window frames and shutters, doors, etc. Much of it was gilded and painted, as may still be seen in the Asār Mahal.

TECHNICAL ART SERIES 1894.

PLATE XII.

STONE IDOL-COUCH FROM A TEMPLE AT
BANAVASI, N. KANARA.

THE stone couch upon plate XII is preserved in the temple of Madhukēśvara at Banavasi, in North Kanara. It is intended for the use of the god. Delicately chiselled stonework is a characteristic of the old Chalukyan temples of this part of the country, the material used being generally a very close grained black stone which is fairly hard yet easily carved, and takes a high polish. In fact, it is of such an uniform grain that whole shafts of round columns have been turned with all their mouldings in upright lathes. The half plan of the bed shows a very pretty marginal band of incised ornament which runs all around it.

PLATE XIII.

PIER IN THE SUBRAHMANYA SHRINE, BRAHADÊS- VARA TEMPLE, TANJORE.

THE Tanjore temple is one of the earliest of the greater temples of South India. In it, the great shrine, which dates from the eleventh century, is the most prominent feature. In this, it contrasts with the other well-known temples, whose shrines are insignificant as compared with the outer and later works. The principal shrine stands in a large single courtyard, and has a smaller entrance court in front. The accessory buildings are of much later and varying date, extending up to the seventeenth century. The temple is described by Fergusson. (*Indian and Eastern Architecture*, pp. 343-45.) His ideas as to its age seem to have been correct, but the dates he has quoted from another authority make the central Chola shrine some centuries too late, and the other Dravidian buildings too early. The carved stone pier, shewn in the plate, stands in the open verandah in front of the Subrahmanya shrine—a small detached building adjoining the larger shrine. The plan of the central portion is square and octagonal, with an attached shaft on two of the opposite faces. It has many features in common with that shewn on the following plate, and dates from the seventeenth century.

PLATE XIV.

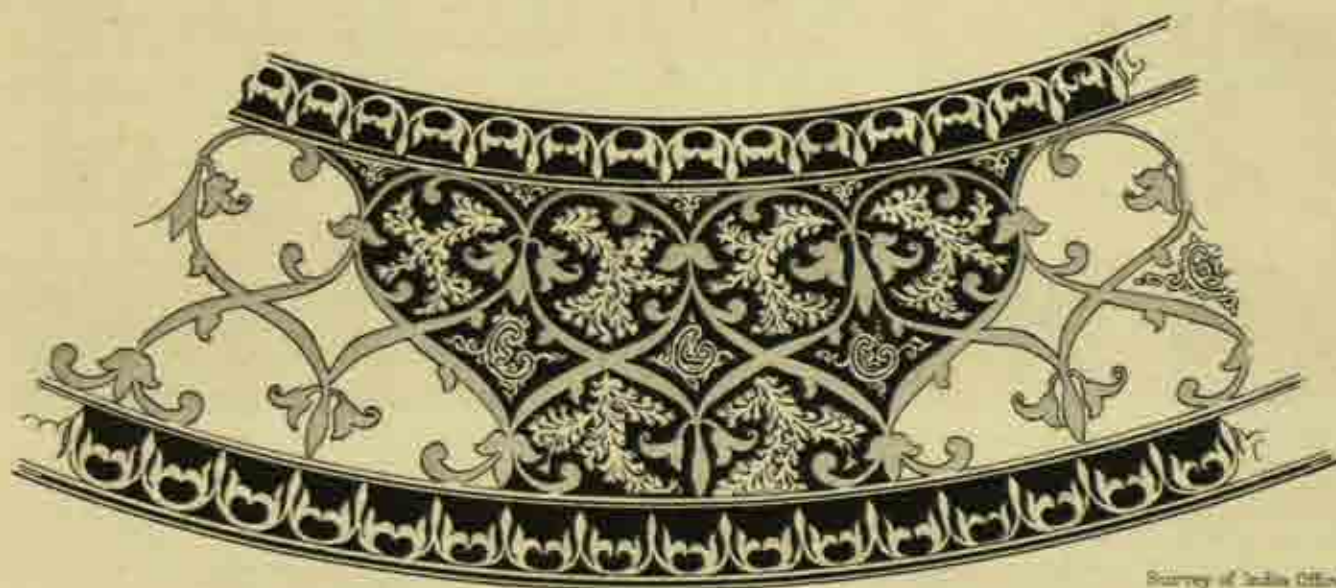
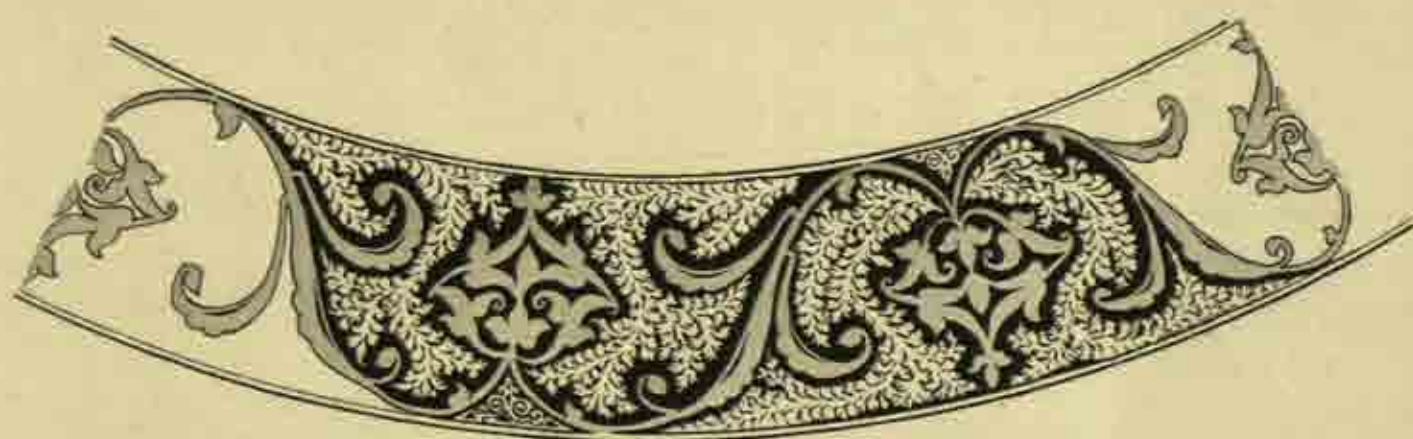
PIER IN THE THOUSAND PILLARED MANDAPA, MINAKSHI AMMAN TEMPLE, MADURA.

THE Madura temple is a typical example of the great Dravidian buildings. Its most noteworthy features are found in its later works. Among these is the Airakal or thousand pillared mandapa. Fergusson mentions (*ib.* p. 364) that its "sculptures surpass those of any other hall of its class" he was acquainted with. The plate shews one of the front piers. In plan it is a square with two narrow pilasters on two opposite faces.

PLATE XII

GRANITE WITH THOUGHTFULNESS
AND A FEW OTHERS

The granite is a fine example of the
granite of the region. It is a fine
example of the granite of the region.
The granite is a fine example of the
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Survey of India Office Calcutta June 1894.

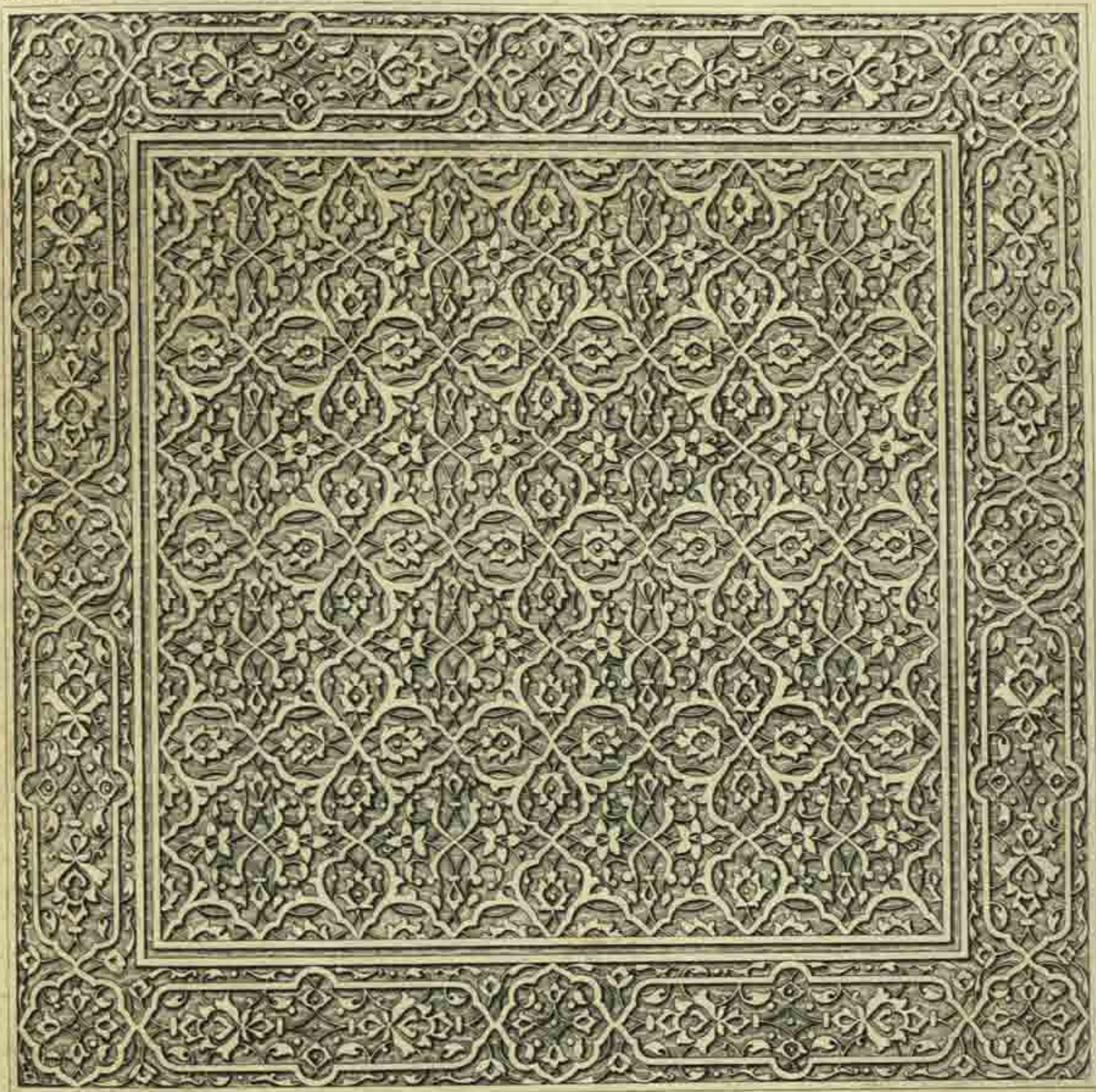


Photo-etching

SILVER INLAIN GOLD & SILVER ON STEEL GROUND KOTI WORK FROM KOTLI LOHARAN, PUNJAB

Scale one-half.

Govt. Anthropological Survey of N.W. Provinces & Oudh. No. 323



CEILING OVER THE NORTH WEST ANGLE ROOM ON THE GROUND FLOOR, JODH BAIS PALACE, FATEHPUR SIKRI.

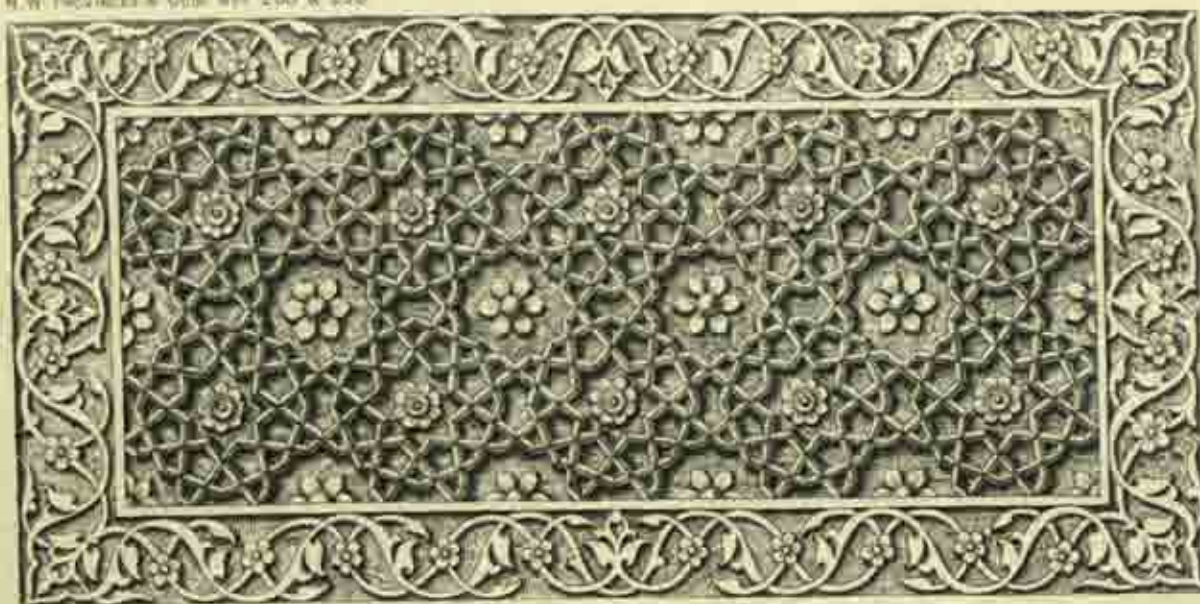


Fig. 1

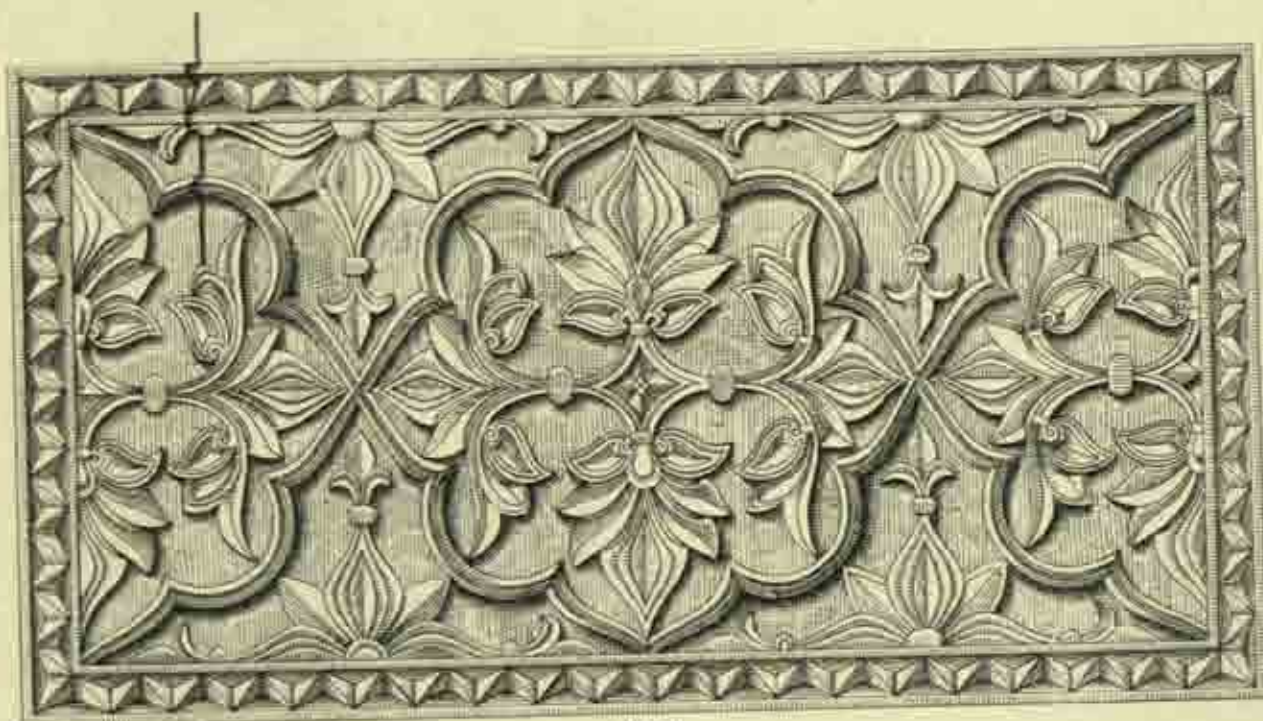


Fig. 2



Fig. 3



DETAIL OF DADO PANELS, SHI. BAHU HOUSE, FAIRFUR SIKRI

GOVT. ARCHEOLOGICAL SURVEY OF N.W. PROVINCE & GUJARAT Nos. 262 & 259.

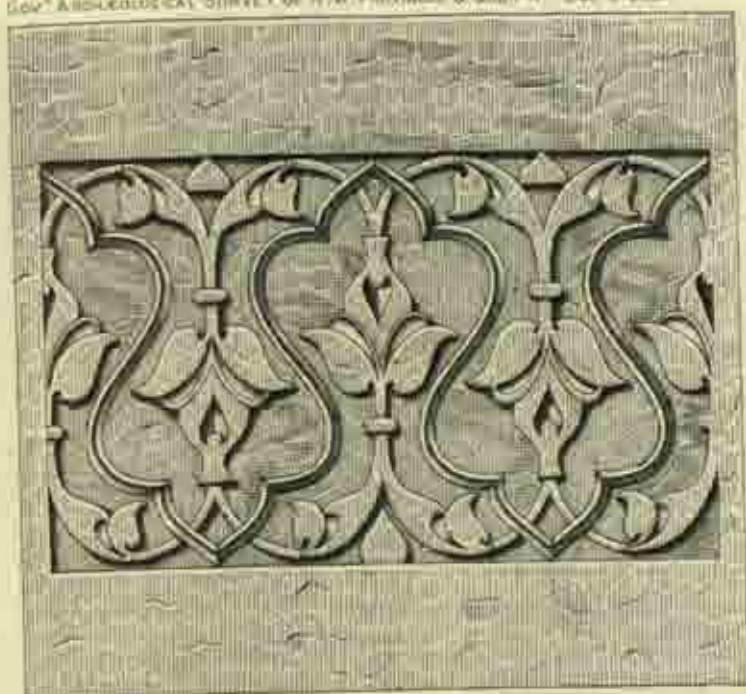


Fig. 1

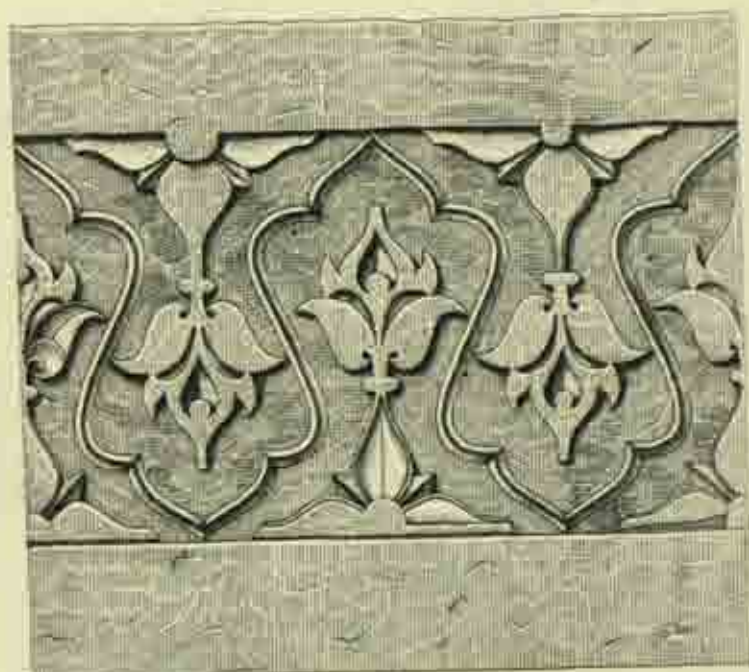


Fig. 2



Fig. 3



Fig. 4



FIGS. 1 & 2 - DETAIL OF FRONTS AROUND INTERIOR OF THE DOME OVER THE UPPER FLOOR ROOMS.
FIGS. 3 & 4 - DETAIL OF BASES TO PLASTERED BIR BAL'S HOUSE, FATEHPUR SIKRI.

Archaeological Survey of N. W. PROVINCES & Oude Nos 256 & 262.

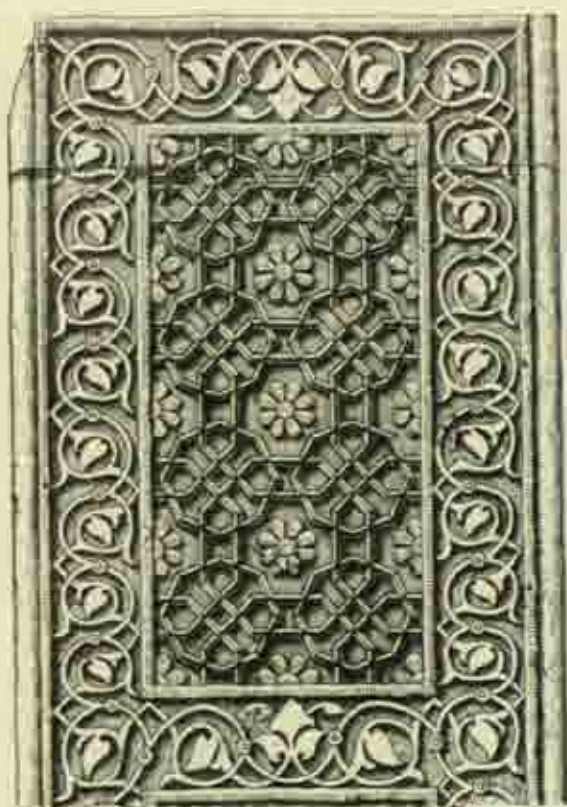


Fig. 1.



Fig. 2.



Fig. 3.



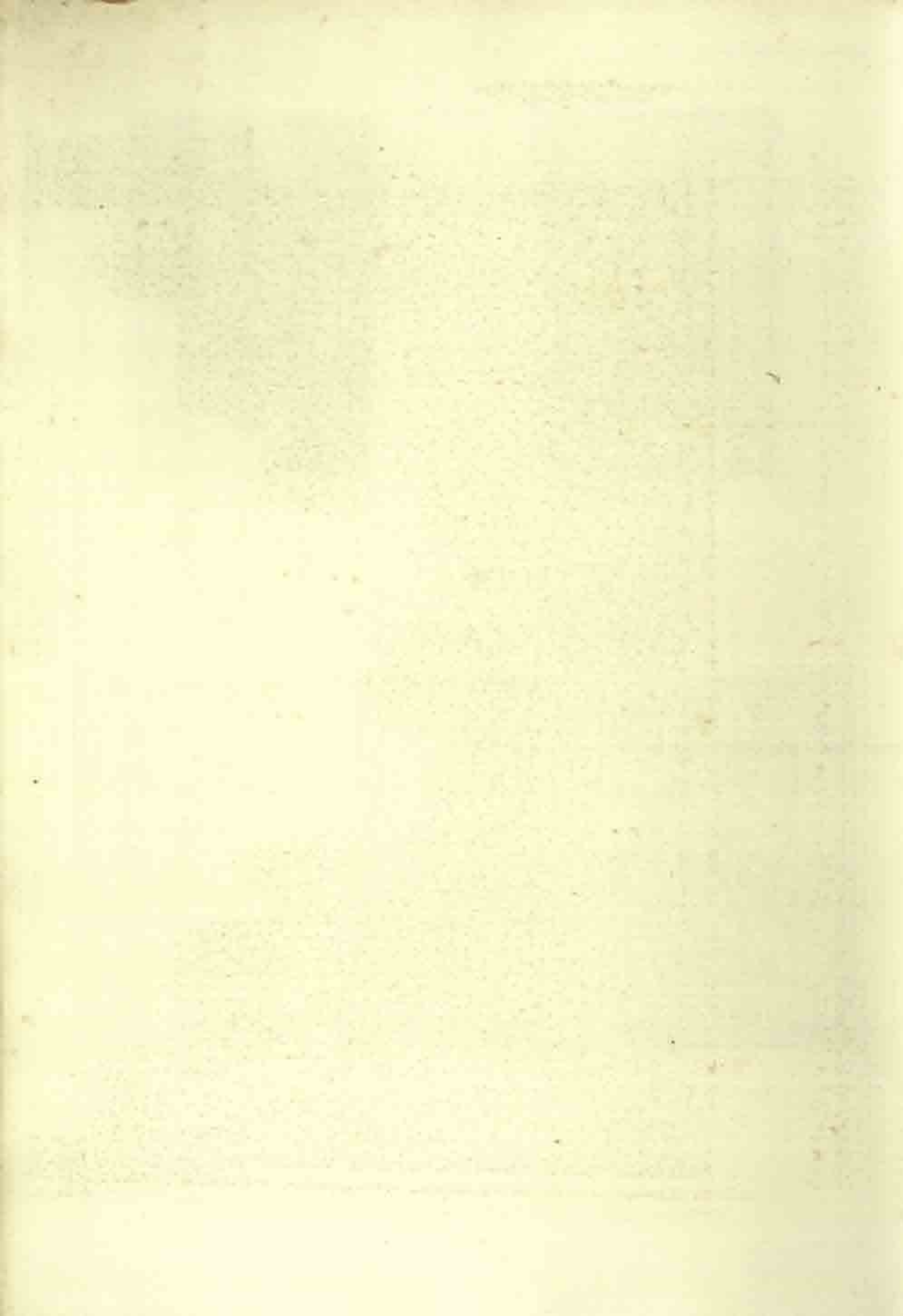
Fig. 4.

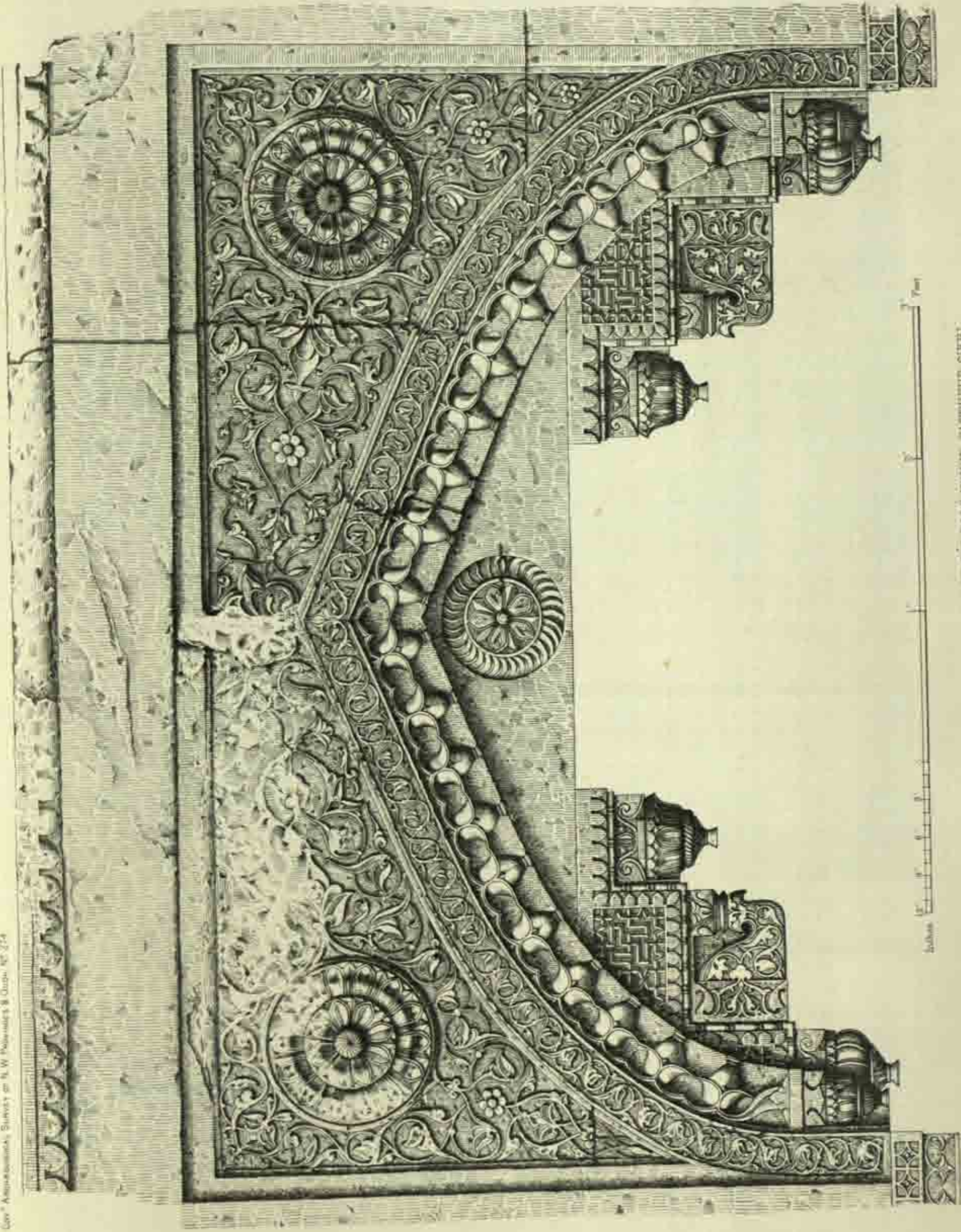


Fig. 5.



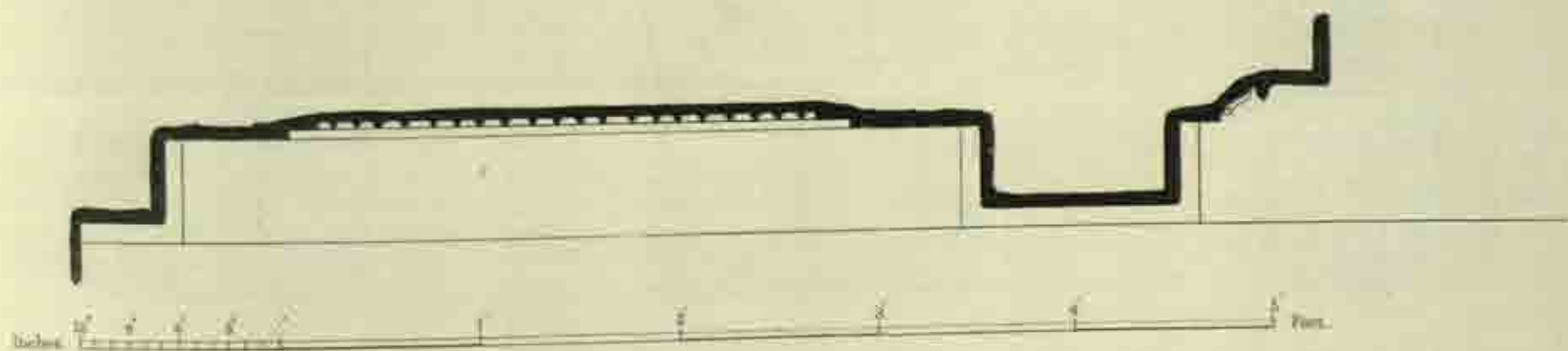
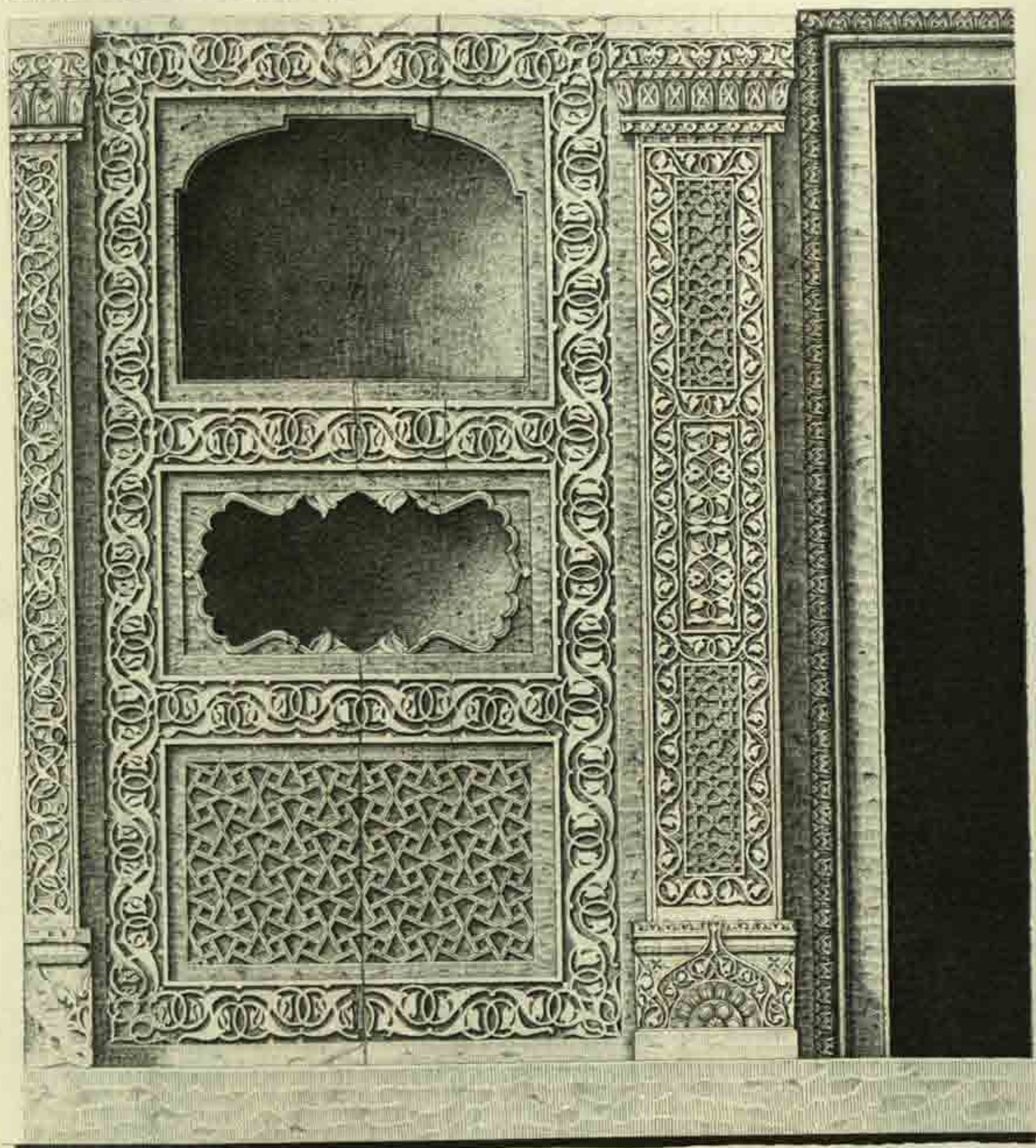
DETAIL OF PANELLING FROM PLASTER, SIR BAL'S HOUSE, FATEHPUR SIKRI.





DETAIL OF ARCHED ENTRANCE NORTH PORCH AIR BALS HOUSE, JATTHEUR SIKRI

GOV. ARCHÆOLOGICAL SURVEY OF N. W. PROVINCES & QUETTA N° 300.



DETAIL OF WAINSCOTTED WALLS IN THE UPPER ROOMS. SIR BAL'S HOUSE, FATEHPUR SIKRI

Archaeological Survey of India, P. & O. No. 102



Inner side



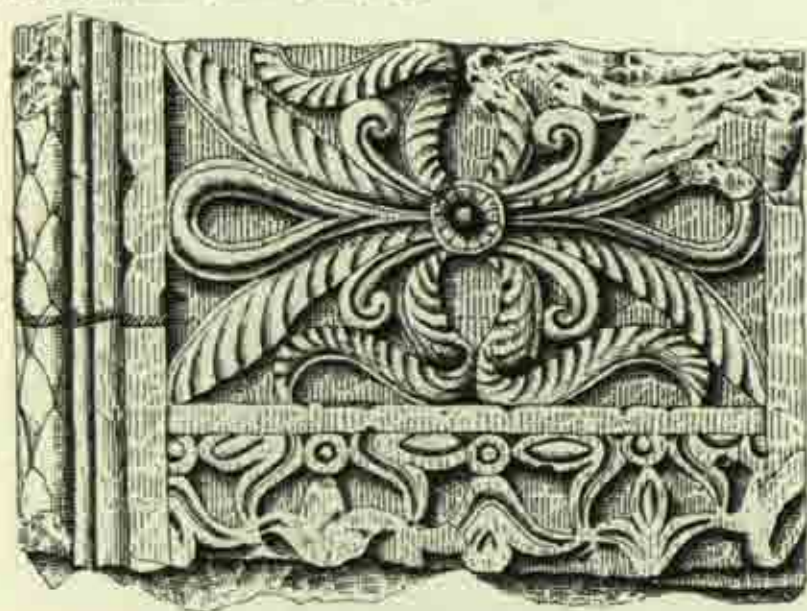
Face



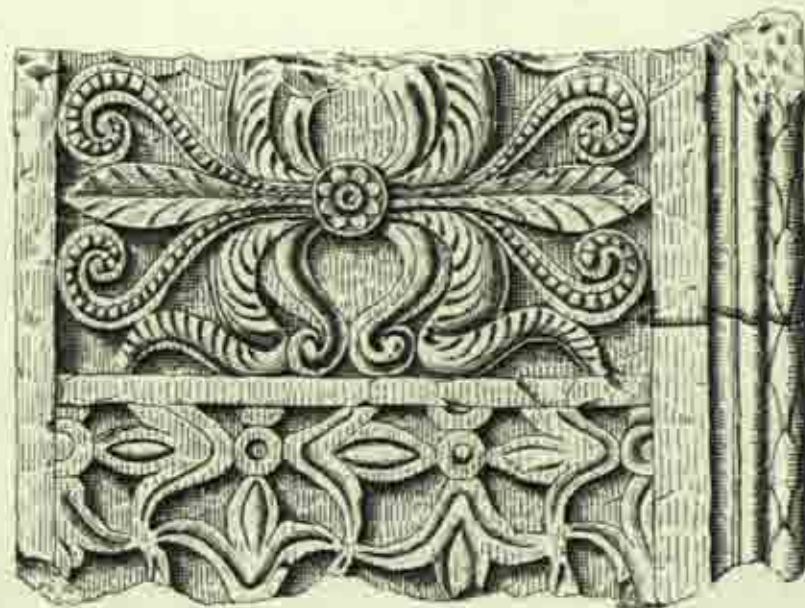
Outer side



GOVT. ARCHAEOLOGICAL SURVEY OF N.W.P. & OUDH, No 612.



OUTER SIDE



INNER SIDE

FIG. 1. FRAGMENT OF DOOR-JAMB.



OUTER SIDE.



FACE



INNER SIDE

FIG. 2. BASE OF SMALL RAILING PILLAR.

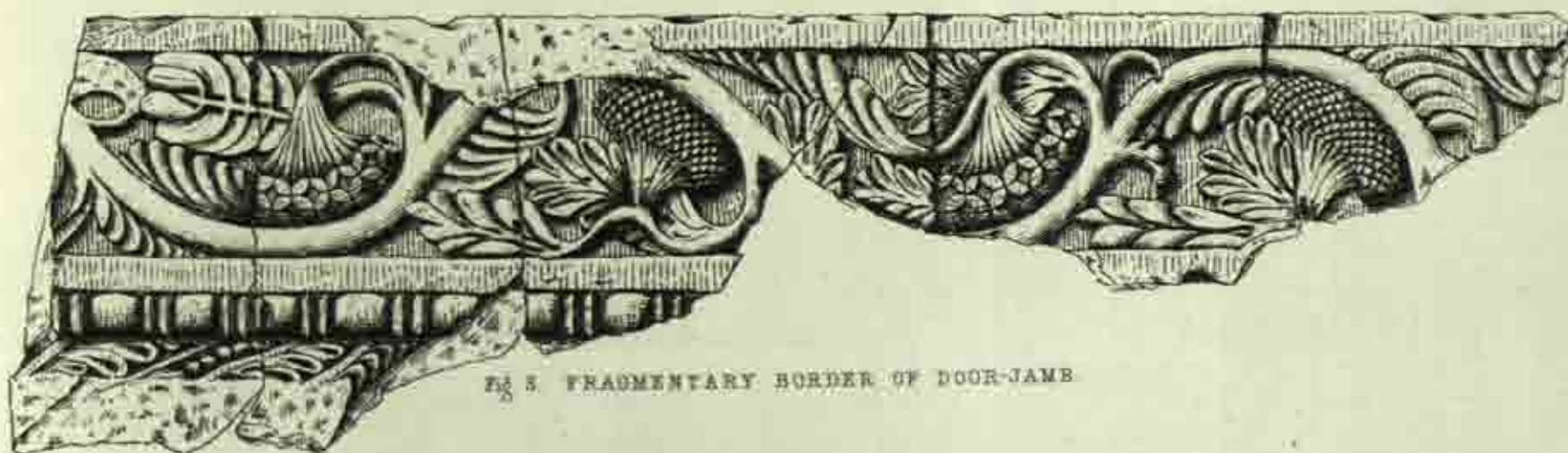
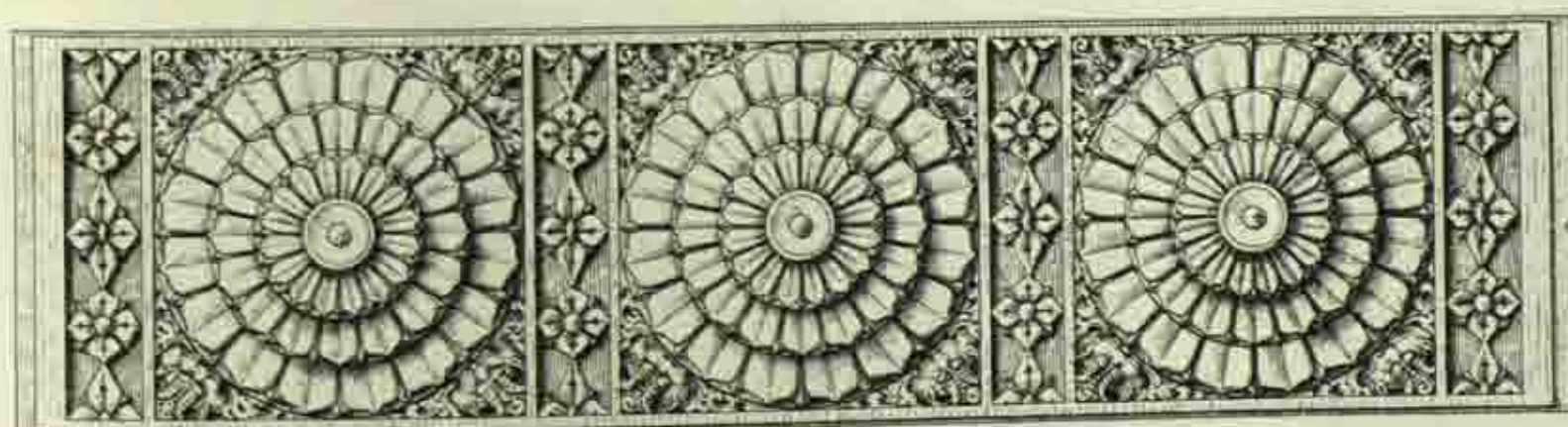
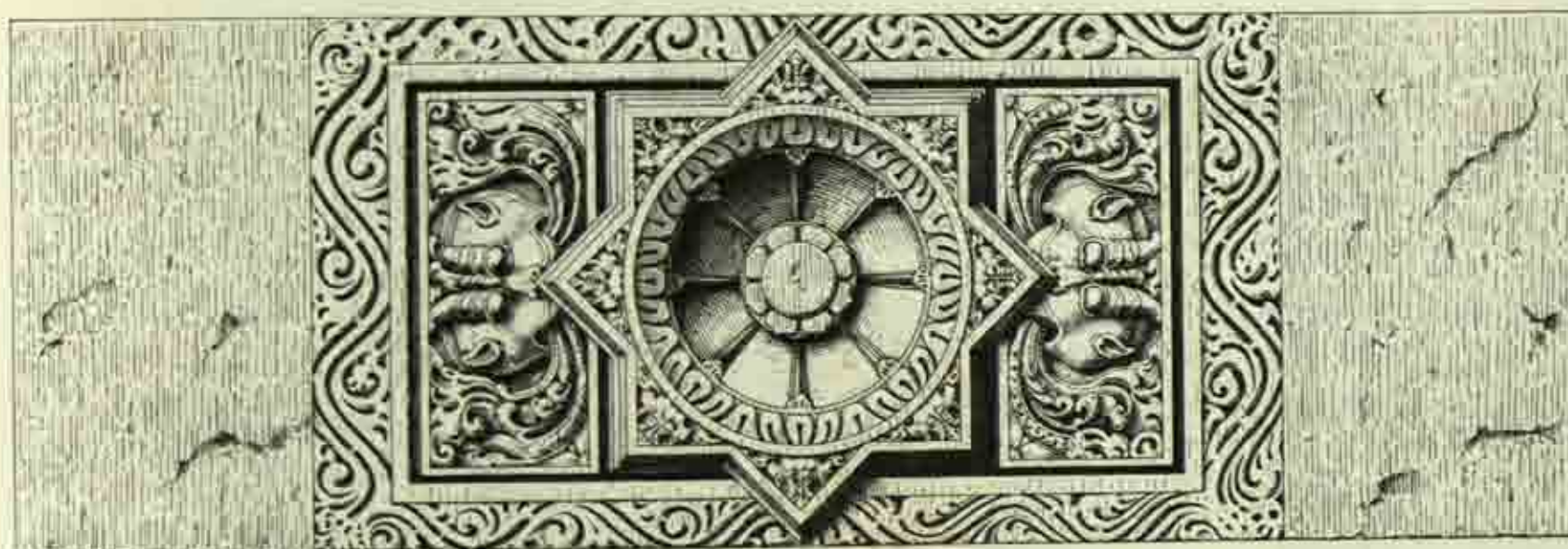
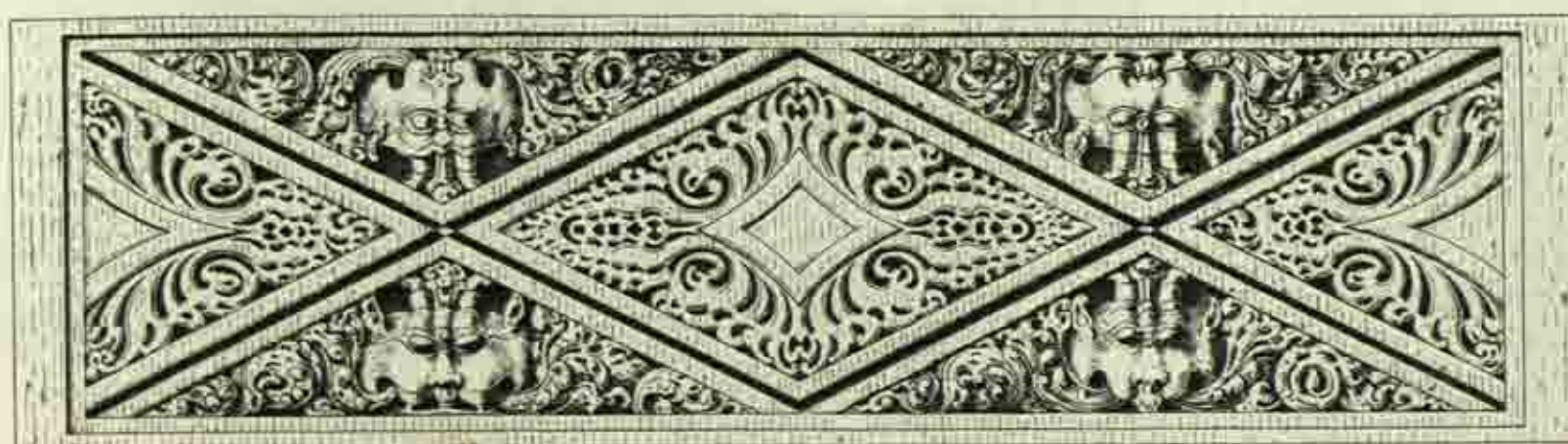
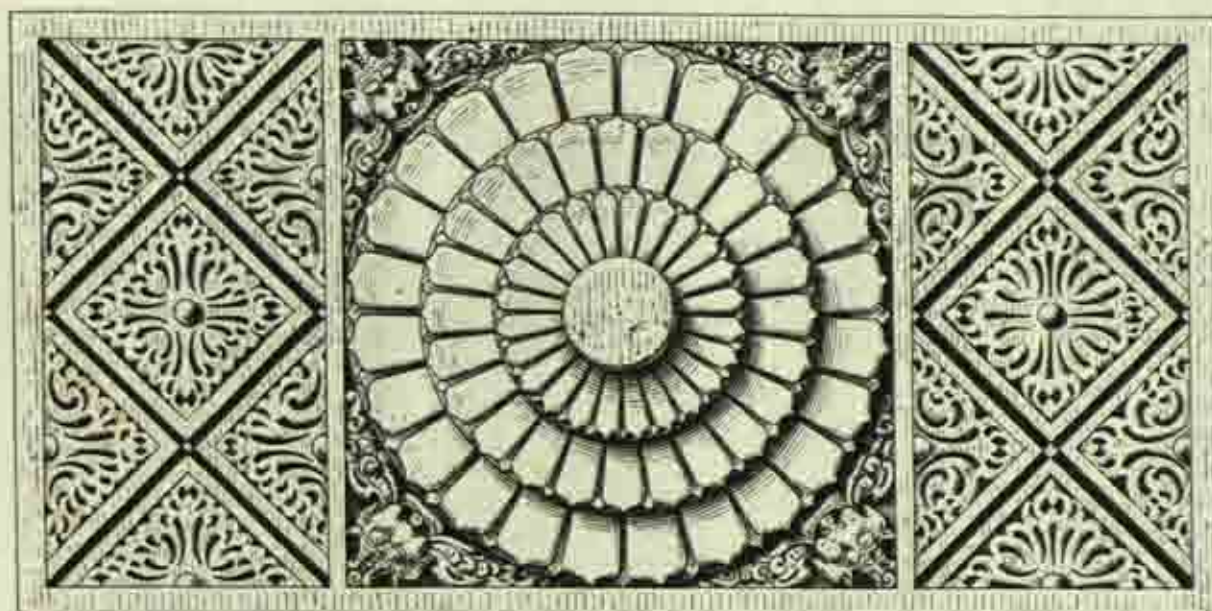


FIG. 3. FRAGMENTARY BORDER OF DOOR-JAMB.



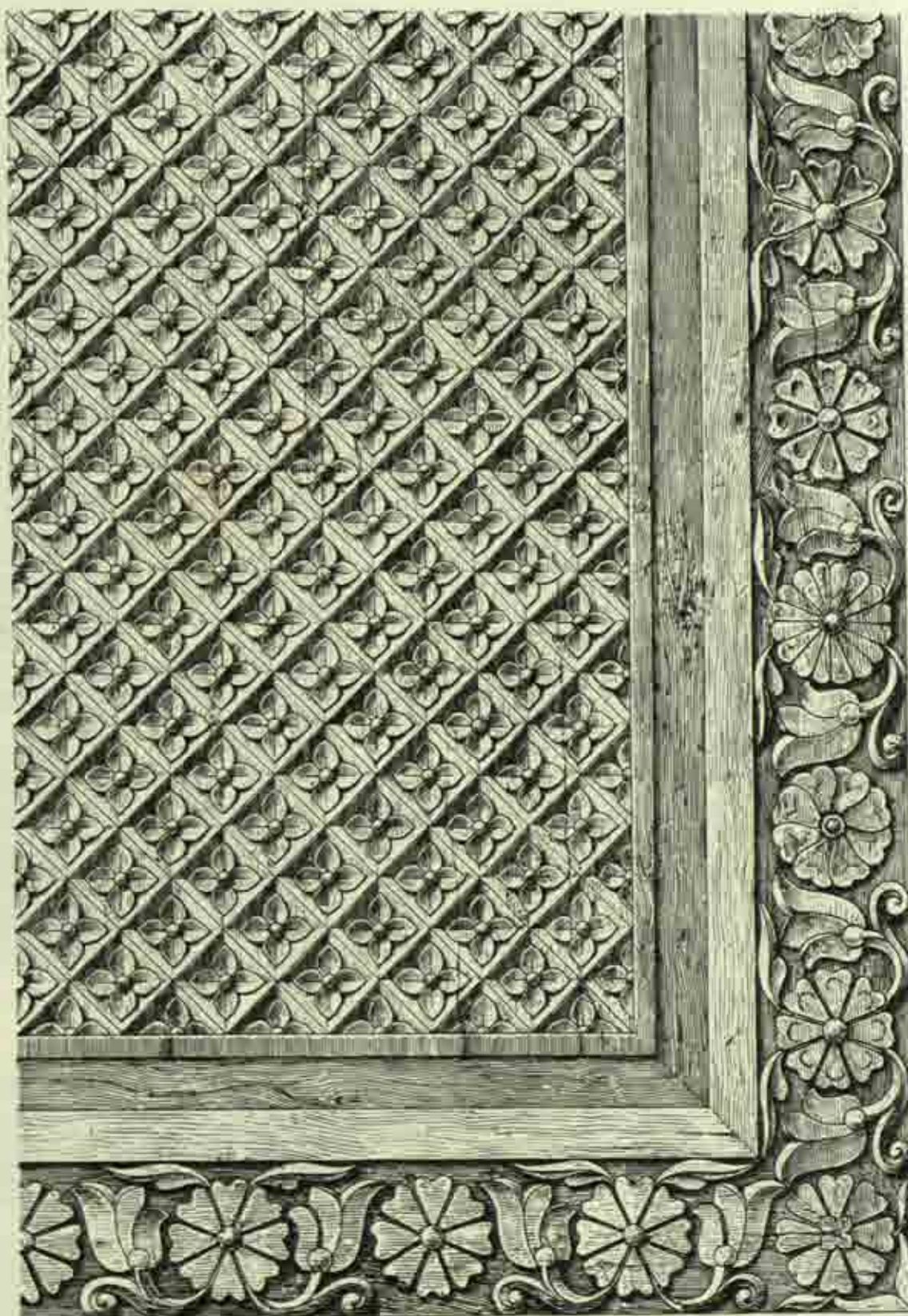
Govt. Archaeological Survey of Western India. No. 1053.



CEILING PANELS FROM THE TEMPLE OF AMBARHATH, NEAR KALYAN, BOMBAY

Survey of India Office, Calcutta, August 1904

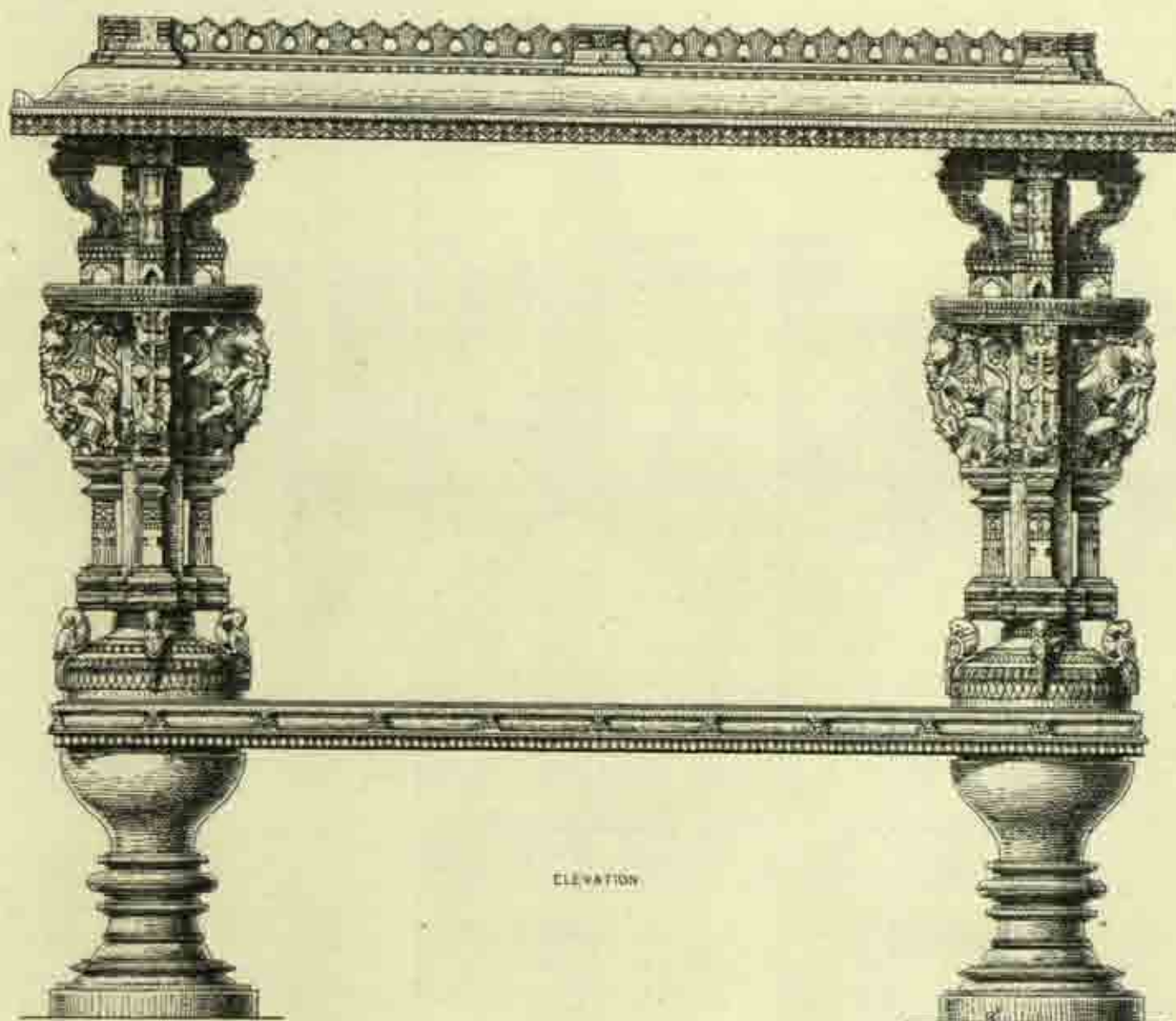
GOVT. ARCHAEOLOGICAL SURVEY OF WESTERN INDIA, NO. 88.



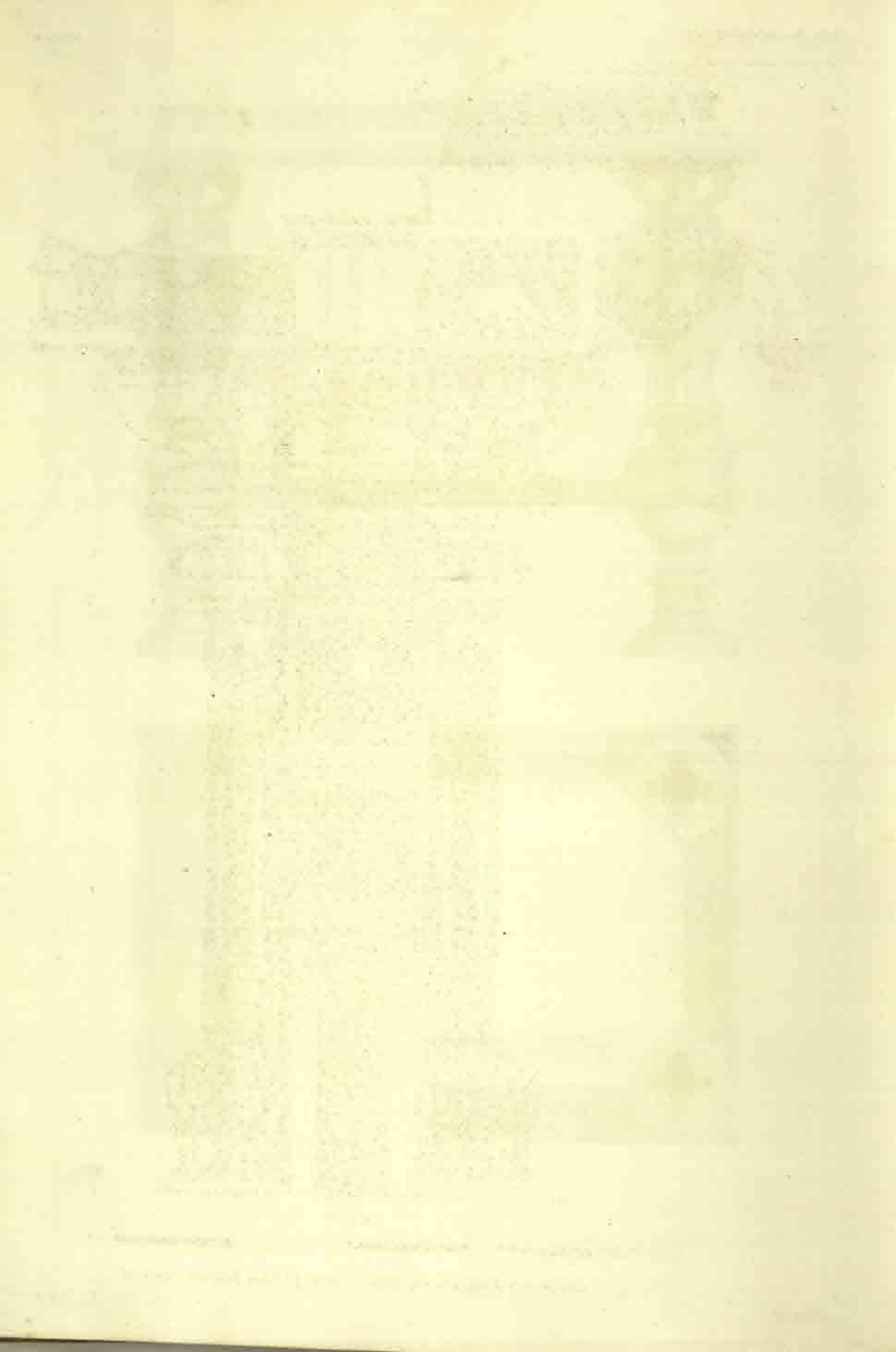
PORTION OF A CARVED WOOD CEILING PANEL, BIJAPUR.

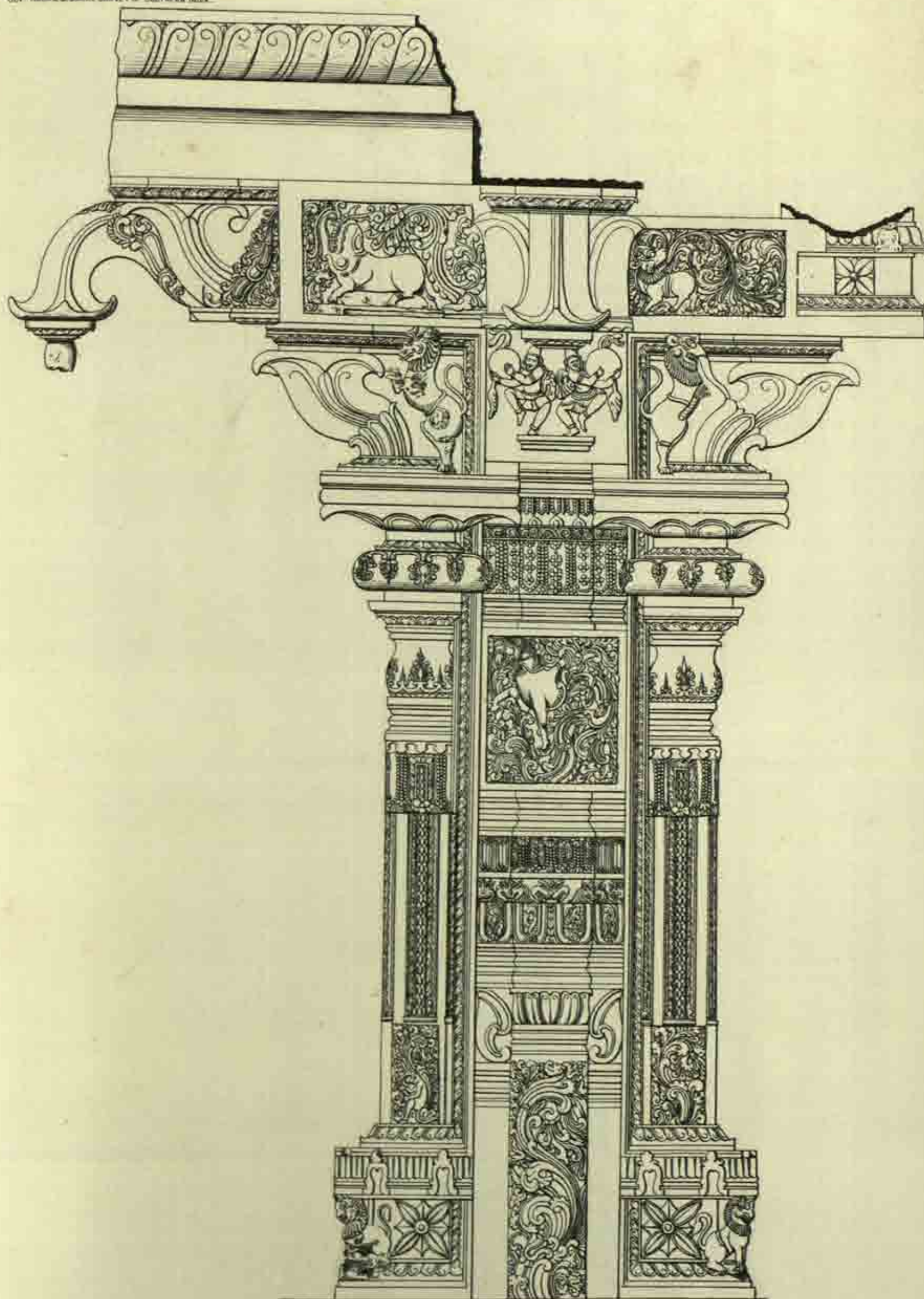
Survey of India Office, Calcutta, August 1894.

Genl. Archaeological Survey of Western India, No. 2002.



STONE COUCH AT A TEMPLE AT BANAVASI, NORTH KANARA.

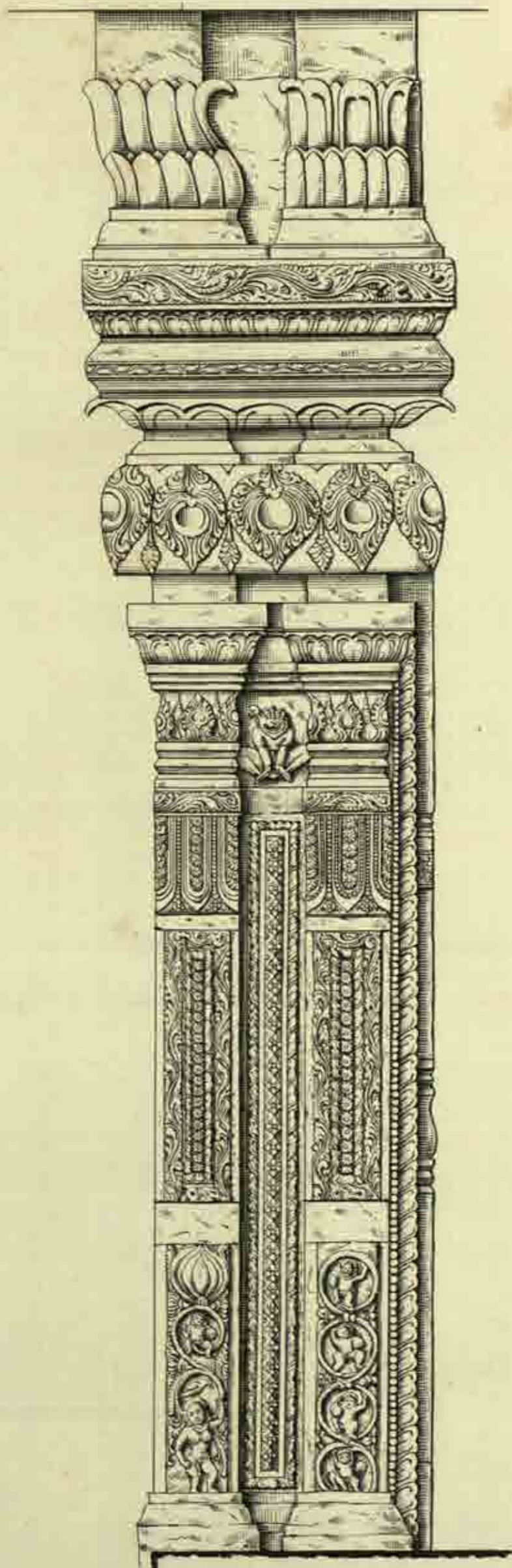




Study of Post

VIEW IN THE SUBRAHMANYA SHRINE, BHAADESVARA TEMPLE, TAJORE

Genl. Archaeological Survey of Southern India.

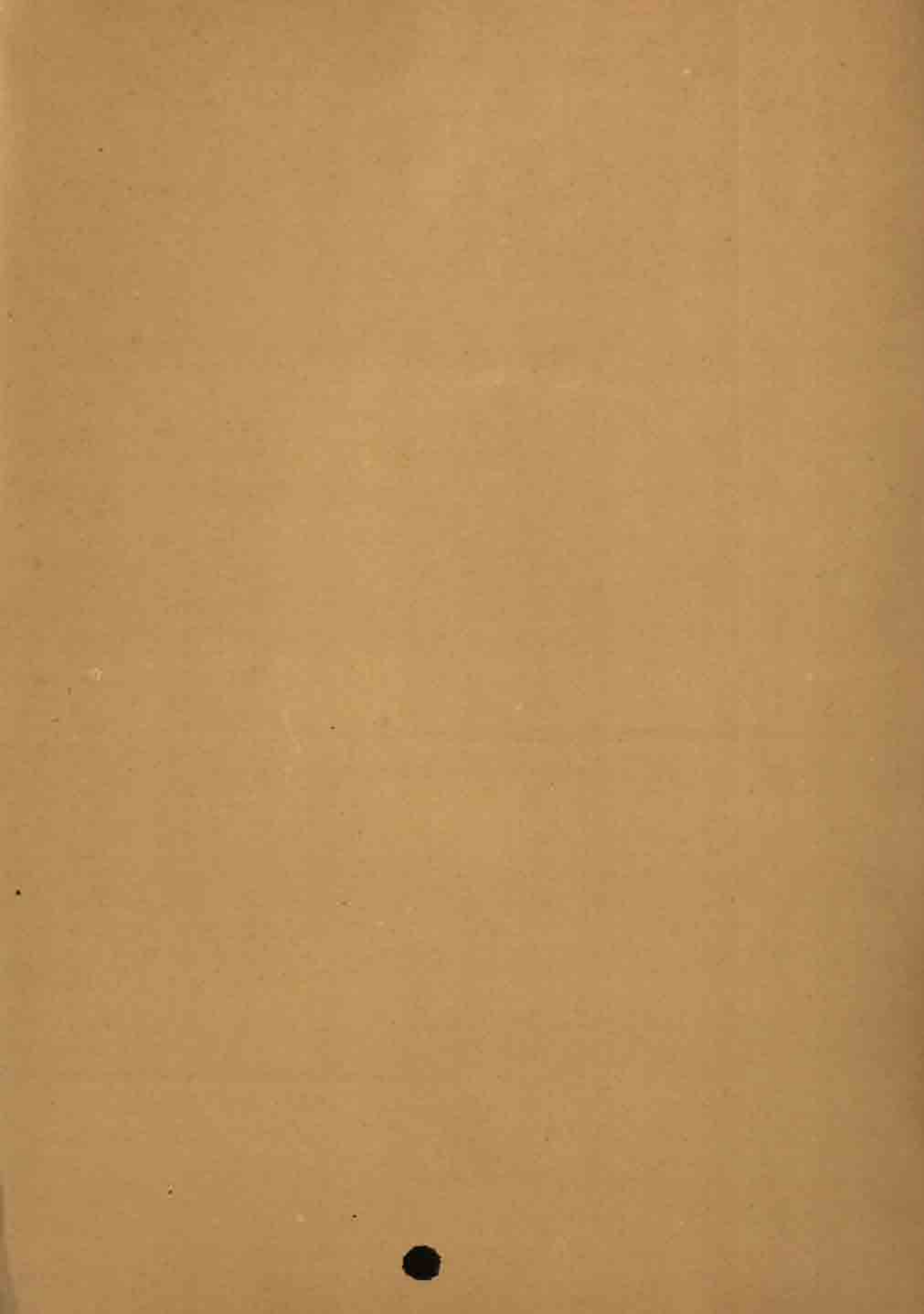


Scale of Feet.



PIER IN FRONT OF THE THOUSAND PILLARED MANDAPA. MINAKSHI AMMAN TEMPLE, MADURAI.

Survey of India Office, Calcutta, July 1900.



"A book that is shut is but a block"

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